

**practical
guide to the**



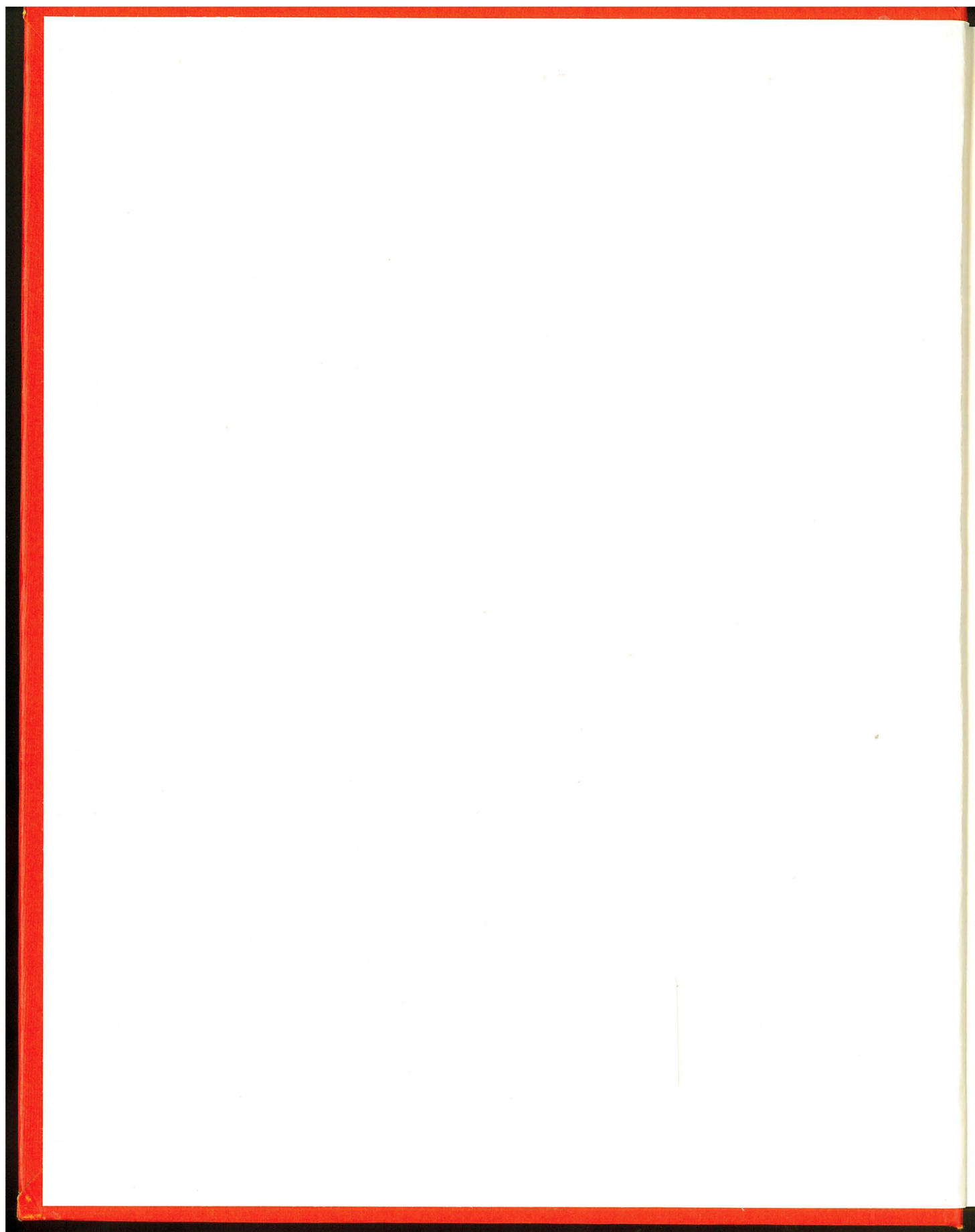
**accounting
system**

dale n. flanagan

**PRACTICAL GUIDE TO THE
BPI™ ACCOUNTING SYSTEM**

FLANAGAN

TAB



**practical
guide to the**



**accounting
system**

No. 2696
\$21.95

**practical
guide to the**



**accounting
system**

dale n. flanagan

TAB TAB BOOKS Inc.
Blue Ridge Summit, PA 17214

To Sean, Stacy, Derek, and Darryl.

7

Notices

Apple II is a trademark of Apple Computer, Inc.
AURA is a trademark of BPI Systems, Inc.
BPI Accounting is a trademark of BPI Systems, Inc.
BPI General Accounting System is a trademark of BPI Systems, Inc.
CONDOR is a trademark of Condor Computer Corporation.
dBASE is a registered trademark of Ashton-Tate.
DIF is a trademark of VisiCorp.
HPIB is a trademark of Hewlett-Packard Company.
IBM is a registered trademark of International Business Machines Corporation.
Lotus 1-2-3 is a trademark of Lotus Development Corporation.
Lotus Symphony is a trademark of Lotus Development Corporation.
Macintosh is a trademark of Apple Computer, Inc.
MS-DOS is a registered trademark of Microsoft Corporation.
Multiplan is a trademark of Microsoft Corporation.
PFS is a trademark of Personal Software.
Visicalc is a trademark of VisiCorp.
Zenith 150 is a trademark of Zenith.

FIRST EDITION
FIRST PRINTING

Copyright © 1986 by Dale N. Flanagan
Printed in the United States of America

Reproduction or publication of the content in any manner, without express permission of the publisher, is prohibited. No liability is assumed with respect to the use of the information herein.

Library of Congress Cataloging in Publication Data

Flanagan, Dale N.
Practical guide to the BPI accounting system.

Includes index.

1. Accounting—Data processing. 2. Accounting—
Computer programs. I. Title. II. Title: Practical
guide to B.P.I. accounting system. III. Title: BPI
accounting system.

HF5679.F55 1986 657'.028'553 85-27636
ISBN 0-8306-0396-4
ISBN 0-8306-0496-0 (pbk.)

Contents

Acknowledgment	ix
Introduction	xiii
1 Who Should Read This Book . . . and Why	1
If You See Yourself . . . 4	
This Book's Approach 4	
The Value of an Accounting System 5	
BPI 6	
The Heart of the System 7	
BPI's Cycle 9	
The Game Plan 9	
2 Characteristics: The System and You	11
Knowing Where You Are 11	
Common Circumstances 12	
The Brand-New Business—The Best of All Worlds—The Brown Paper Bag System—The Rest of Us	
A Trade-Off 15	
Organization Is the Key 16	
BPI System Characteristics 16	
System Limitations 17	
What You Get 19	
Ledgers—Journals—Schedules—Reports	
3 Organizing Your Chart of Accounts	23
Your Books 23	

- The Balancing Act 24
- Generally Accepted Accounting Principles 26
- Cash and Accrual 26
- Debits and Credits 27
- Pluses and Minuses Equal Zero 28
- Parts of the Chart of Accounts 28
 - BPI Headings—Account Headings, Balance Sheet, and Income Statement—Account Numbers—Departments, Branches, and Locations—Department Restrictions—Balance Sheet Account Consolidation—The 9999 Account—Other Special Account Numbers—Actual Account Numbers

4 Sample Account Numbers 39

- Balance Sheet Accounts 39
 - Current Assets—Fixed Assets—Other Assets—Current Liabilities—Long-Term Liabilities—Capital
- Income Statement Accounts 43
 - Income—Cost of Sales—Expenses—Other Income—Other Expenses
- The BPI System Account 47

5 Preparing for Conversion to BPI 40

- Backup 50
- Multiple BPI Systems 50
- How Long Will It Take? 52
- Basic Training 52
- Gathering Vendor Data 54
- Assigning Numbers 54
 - Vendor Numbers—Other Numbers
- General Ledger Setup 55
- Timing for Conversion 56
- Keeping a Conversion Diary 57

6 Creating Books for Your Company 50

- General Ledger Creation 60
- Company Configuration 61
 - Multiple Companies—Your Company Name—Password—Capital Income Account—Invoice Register and Accounts Receivable Ledger—Cash Sales—Merchandise Purchase Journal—Cash Disbursements Journal—Checks—Cash Receipts Journal—Cash Register Journal—Payroll Accounts
- Customer, Vendor, and Employee Numbers 69
- Payee/Payor Prompts 69
- Standard Entries 70
- Editing Prompts and Information 71
- The Next Step 72

7 Starting Balances and Daily Routines 73

- Initializing Your Books 73
 - The Trick Account—Small Batches—Nothing Left in 9000—Problems during Conversion—Having Faith—Method, Method, Method!—Must You Run BPI Every Day?
- Starting BPI Processing 78
 - Main Menus—Dates—Multiple Companies—The Queue
- Entry Screens 81
 - Sequence of Entry—BPI Recommends—An Alternate Entry Method—Wire Baskets
- Manual Filing Methods 83
- Make a Backup 84

8 Reports and Routines 85

- Posting 85
- Processing Cycles 88
 - Weekly Processing—Monthly Processing—Yearly Processing
- Backups 92
- The Balance Sheet 92
- The Income Statement 93

	- Trial Balance 95 - Reports 95 - Cash Register—General Ledger—Cash Flow—Employee Reports - Summary 98	
9	System Security	99
	- Fraud 99 - The Outsider—Password—Internal Fraud - A Primer on Fraud 101 - Do It Yourself—Phony Bills—Balance Your Checkbook—Controlled Checks - Striking a Balance 104	
10	Other Software	105
	- Spreadsheets 106 - How Spreadsheets Work—Data Transfer—Spreadsheets and the Income Statement—Graphics Output - Databases 110 - Custom Programs 111 - Special BPI Software 112 - BPI Association Management—BPI Church Management—BPI Job Cost System—BPI Time Accounting System—Other BPI Software	
11	Computer Stuff	117
	- Backups 118 - Quality Counts—Making Backups—Disk Killers—Contamination - Hard Disk 120 - Printers 121 - Speed—Reliability—Versatility—Interface - Fighting Electrical Problems 124 - Power Surges—Power Failures—UPS	
12	The BPI Accounts Receivable System	127
	- Cash Flow 128 - Finance Charges 129 - Two Accounting Methods 129 - Open Item Method—Balance Forward Method—Changing from Balance Forward to Open Item - Credit Accounts 131 - Accounts Receivable Account—Repetitive Charge Account—Revolving Charge Account—Fixed Payment Account—Minimum Balance and Two-Level Finance Charges - Setting Up the Company 133 - Accounts Receivable General Ledger 133 - Company Configuration 134 - Invoices 135 - Fiscal and Calendar Years 135 - Individual Customer Records 135 - Accounts Receivable Prompts 136 - Reports Provided 136 - Aged Accounts Receivable 139 - Bad Debts 139 - Summary 141	
13	The BPI Accounts Payable System	143
	- Trade Credit 143 - Cash Flow 144 - Cash Famine and Cash Feast—A Case Study—Managing Cash Flow with BPI Accounts Payable - System Organization 146 - Company Configuration 147 - Accounts—Voucher System—One to Many or Many to One - Accounting Method 151 - Discount Method 152	

Conversion to BPI Accounts Payable	152
Invoice Entry	153
Automatic Entries—To Pay or Not to Pay	
Paying the Bills	154
System-Printed Checks—Handwritten Checks—Multiple Checkbooks	
Accounts Payable System Reports	155
Nice Touches	155
14 The BPI Payroll System	157
System Characteristics	158
Calculating Payroll—Pay Periods Handled—Commission Plans—Employee Numbers	
Conversion to the System	162
Payroll System Reports	163
Installing the System	163
Mandatory Accounts—Company Configuration—Deductions—Individual Employee Information	
Starting and Using the System	167
Editing Accounts—System Operation—Hourly Employees	
Summary	169
15 The BPI Inventory Control System	171
Characteristics of Poor Inventory Control	171
Manual Systems	173
BPI Inventory Control	173
Average, FIFO, LIFO—System Setup—Reports—Operating the Inventory Control System	
Conversion to the System	176
Company Configuration	178
Customers and Vendors—Merchandise Purchase Prompts	
Entering Inventory Items	180
That's Not All, Folks	183
Cost Initialization	183
The Perfect Time for Conversion	184
Useful Reports	184
Ordering—Backordered Items—Price and Description List	
Summary	188
16 Epilogue	189
Lisa—Jerry—Pat—George—John—You?	
Appendix: BPI System Availability	197
Index	203

Acknowledgments

Thanks to Laura Ziak for her assistance in the preparation of this book, and to the many people at BPI who helped me in obtaining information—with a special thanks to Mary Inglis.

**practical
guide to the**



**accounting
system**

Introduction

BPI is one of the best-selling microcomputer accounting software packages in the world, with over a quarter of a million packages sold. *Computer Retailer* magazine rates it number one, based on sales, and the readers of the Apple magazine *A +* voted it number one in the business software category. Many manufacturers co-market the BPI Accounting Software Package, including IBM, Apple, Hewlett-Packard, Tandy, NEC, Sanyo, and Zenith. By almost any standard, BPI is a market leader. But this isn't the reason I wrote this book.

I wrote this book because I like the software and use it myself. I first became aware of the BPI system when I was looking for an accounting system for my own businesses. I had used four accounting systems prior to discovering BPI and, frankly, was dissatisfied with all of them. The BPI systems changed my opinion of microcomputer accounting systems.

I have helped install BPI systems for many consulting clients. Based on this experience, I realize that many users of the software needed to know information which isn't found in the software instruction manual. BPI's software manuals are usually good (in fact, they've won several prizes), but they can't cover the full range of business problems that confront potential users of any microcomputer accounting software.

These problems include things like the physical logistics and timing of the installation of the software, as well as practical considerations such as how you file documents or how you protect yourself against potential fraud. By necessity, BPI documentation must concentrate on the actual operation of the software and can't wander off into topics like manual procedures or ways to enhance the performance of the system on various computers.

This book is designed to be a supplement to the BPI documentation, not a substitute for it. Ideally, potential users of the BPI System would read this book before reading the documentation for the specific software products they've purchased. It assumes no prior knowledge of accounting and accounting practices, nor does it expect you to have a fund of computer knowledge.

Chapter 1 describes a variety of potential users of the BPI system; you may recognize yourself in the scenarios presented. The purpose of this chapter is to provide guidance on whom this book is designed to help.

Chapter 2 discusses characteristics of your business, yourself, and the BPI System. This is one of the most critical evaluations you should make, because any computer system is very dependent on a good match of system characteristics to user personality.

In Chapter 3 we talk about the chart of accounts. This is the foundation for the BPI Accounting System, and indeed for most microcomputer accounting systems.

Chapter 4 gives a complete list of sample accounts. This is especially designed for people who are not familiar with the concept of account numbers, and we've made an effort to include descriptions of what each of these accounts are used for.

Chapter 5 outlines the preparation that you will have to go through to convert your current accounting system to the BPI System. A clean and successful conversion to BPI is not difficult, but if it is not done properly it can cause continuing problems to your business.

Chapter 6 discusses about the actual creation of the books for your company, using the BPI System; Chapter 7 details the starting balances you should use for account numbers, as well as the daily routines you should perform with your BPI System; and Chapter 8 concentrates on the monthly and weekly routines you should perform, as well as the reports that you can get out of your system once you're up and operating.

Chapter 9 is about system security and how you can protect yourself from the more common types of fraud involved with any accounting operation.

In Chapter 10 you will discover other software designed to work with your BPI System. In this chapter, we talk about spreadsheets, databases, and BPI's AURA Integrated Software product, which is designed to provide spreadsheet, word processing, and database compatibility with your BPI Accounting files.

In Chapter 11, you'll learn about all sorts of "computer stuff." This concentrates on protecting your systems and improving the performance of your system.

In Chapters 12-15 we concentrate on additional BPI packages, the Accounts Receivable and Accounts Payable Systems, which are designed to work with your General Accounting System. Also discussed are the BPI Payroll System (Chapter 14) and the BPI Inventory Control System (Chapter 15).

This book is designed to become a practical handbook for the installation and operation of the BPI Accounting System. It's also designed to provide you with a sourcebook of information on other related software that works with the BPI Accounting System, such as BPI's own AURA package or their Accounts Receivable or Payroll packages.

I've tried to write in the style that I would use if I sat down and talked to you if you hired me as a consultant. My sincere hope is that the information in this book will help other business people successfully implement the BPI System.

Chapter 1

Who Should Read This Book . . . and Why

Do you see yourself here?

The Midnight Scribbler

The coffee was cold, the clock read 17 minutes past midnight, and Lisa Hart was totally frustrated. She stared down at the paper in front of her for what seemed like the millionth time. That row of numbers simply wouldn't add up properly. No matter how many times she added up the numbers, she kept getting a different answer.

She sighed and sat back in her chair. When she started Lisa's Palette, an art supply store, this kind of activity was not quite what she had in mind.

Lisa had a dream of turning her interest and knowledge of art into a business that would allow her to help people and make a living at the same time. In her fantasies she'd be sitting in her store stocked with various supplies, dispensing both wisdom and materials to the people who walked through the front door. In the daytime that dream was more or less a reality, but for too many evenings the dream had a nasty habit of turning into a nightmare: she didn't anticipate all the paperwork and bookkeeping involved in running one's own business.

At times like this, Lisa often thought of turning all the bookkeeping work over to Jerry Washington, the CPA who helped her set up the business. She was reluctant to do this, because she realized that a small business, especially a beginning one, must keep tight financial control on expenditures and inventory. Lisa felt the best way to do this was to do the books herself.

Lately, this resolve had been weakening. Although Jerry Washington had showed

her how to do a set of books by hand, he hadn't shown her how to take a row of stubborn numbers and make them add up properly the first time. Lisa felt a little trapped. She didn't like all the manual effort involved in keeping track of her books, but on the other hand she knew she gained valuable insight into the way her beginning business was operating. Lisa was convinced that there had to be a better way to handle small business accounting than the manual method she was using. She thought she knew what this better way was.

She'd been thinking of purchasing a personal computer for the business for quite a few months. It would help her control her inventory better, as well as do the accounting in a more efficient fashion. It would also allow her to generate business by creating special mailing lists and form letters to let customers know when new items entered the store or when Lisa was running a sale.

Lisa made a note to herself to see Jerry Washington the next morning and ask him about microcomputer accounting systems for her business. Then she sighed, pulled her calculator a little closer to her, and started adding up that row of numbers again. She hoped she would come up with an answer that matched at least one of the previous tries.

The Professional

The next morning Jerry Washington was upset, not with Lisa Hart, but with himself. For months he had been promising himself to take the time to learn about microcomputer accounting systems, to learn their strengths and their weaknesses, and to learn how they might serve his many small business clients.

Now Lisa had walked in, asking him some very reasonable questions about how a microcomputer accounting system might help her business. Jerry was placed in the position of having to admit that he couldn't answer these questions. And that's what made him upset. As a CPA, Jerry knew accounting. But he didn't know computers. Although his practice used computer services for bookkeeping and client taxes, he had not really kept up with the current developments in business microcomputers.

"Lisa", he said, "I'm going to have to admit to you that I can't answer your questions about microcomputer accounting systems, at least not all of them. What I promise I'll do is learn about these systems so I can advise you about which system might suit your needs, and how this system should be installed. Several of my other clients are thinking of doing exactly what you're doing, including some of the ones who are currently using a timesharing system to do their accounting work."

The Next Stepper

One of the clients Jerry Washington was talking about was Pat Mathews. Pat had been using a timesharing system to do most of the bookkeeping work at his business for a couple of years. Use of the timesharing system involved a great deal of manual effort, which surprised Pat. He had to batch his various records and prepare totals (called *hash totals*) of various categories and accounts, so he could know that the data had been entered properly by the timesharing service.

Pat felt that he was doing so much manual effort to prepare the input for the

timesharing service that he should really get his own computer and enter the data directly. He was not dissatisfied with the service that he had gotten, but he was dissatisfied with the fact that accounting reports were several days late and produced only once a week. When he thought about that he chuckled a little bit. When he was on his manual bookkeeping system, his reports would often be a week or more late and he would produce them only once a month. "I'm spoiled," he said to himself.

But that spoiling was something which Pat felt comfortable with. He found that as he got more timely accounting data about his business, he was able to make decisions better: when to have sales, when to stock up on inventories, when to watch his cash flow because he knew he had commitments coming up. All of these things he had done by guess and gut feel, before having a professional accounting system for his business. With a good accounting system, he felt he was in much more control over the destiny of the business and his own life.

Now he wanted to gain even more control by getting his own computer and installing an accounting system. He recalled that a friend of his, George Yoshida, had put a computer in about a year ago for his bait and tackle shop. Pat decided that next time he saw George, he'd ask him how it had worked out and what kind of luck he had with the accounting system he had installed.

A Step Too Far

When Pat Talked to George Yoshida, he did not get an encouraging report.

"I'll tell you," George said, "after about four months, we finally gave up on it. We still use the computer for other things. I use a spreadsheet program to do financial analysis and projections. And my kids have learned a lot working with the computer. But we never really got the accounting system up and running like we should have."

"What was the problem, George?" Pat asked.

"This is kind of embarrassing to admit," George said, "but I think we were the problem. We really didn't know enough about computers and accounting to install the system successfully. Since putting in the computer, I've been using a good bookkeeping service and that's taught me a lot about how my business should operate and what things I should watch for. When I tried to install the computer, I really didn't have a bookkeeping system of any kind. As a result, all our records were pretty jumbled up when we tried to enter them into the machine." George shrugged, "You can guess the rest. When we tried to automate something that was in total disorder, we just made things worse instead of better."

"I know you're really careful with your records, Pat. So you won't have the same problems that we had. In fact, I think if I tried it again, I wouldn't have the those problems either. It taught me an awful lot about how I was running my business when I did try to computerize. The accounting system I bought was pretty good, so that wasn't the problem. It was the BPI System, and it had a lot of nice features. Like I said, I think the major problem was us, not the system."

"Excuse me," a voice said. Pat and George looked around and saw a stranger standing before them. "I couldn't help but overhear what you were saying," the stranger said. "I'm interested in buying the BPI System for my business, too. And maybe I could ask some questions about it, if to you don't mind."

The Reluctant Buyer

The stranger was John Sanders. John had been shopping accounting systems for microcomputers for quite some time. After a great deal of research, he decided on the BPI System . . . sort of. He had gone through a dealer demonstration of the program, but he didn't feel satisfied that it really explained everything he wanted to know about the program, especially about installing the program. Now he wanted to get more information before he actually put his money down and bought the BPI System.

John knew about microcomputers, having used them in his consulting business for several years. What he didn't know about was accounting and the details of the BPI Accounting System. He felt he needed a source of information more detailed than a dealer demonstration, but he didn't quite know how to find such a source. John felt that stopping at George's bait and tackle shop to look at new lures could turn into a lucky break, because maybe he could also pick up some tips about BPI from a former user, especially one who sounded like he'd like to try installing BPI again if he could just get a little help.

IF YOU SEE YOURSELF . . .

If you see yourself in any of these five scenarios, then this book is for you. This book will give you practical advice about the BPI Accounting System. It will show you how to install the system in your business. It will suggest daily, weekly, and monthly routines to use when operating the BPI System. And it will also cover the essential concepts that you should know to operate the BPI System.

You should read this book if you:

1. Are a business person without an accounting or data processing background.
2. Are an accounting professional who does not have extensive experience with microcomputers and microcomputer accounting systems.
3. Could use more information on subjects not covered in depth by the documentation which comes with the BPI System.
4. Are a person who is interested in installing a microcomputer accounting system in your business and who wants to learn more about the BPI System.

THIS BOOK'S APPROACH

There's a school of thought that says all instruction manuals should be broken down into the elemental parts of the thing you're trying to accomplish. These parts should then be explained in the proper sequence and in great detail; time shouldn't be wasted on explaining to the user why they're doing a particular step and the importance of that step. The unspoken theory behind this type of book is that if you break any task down to its most elemental parts and take the user through, step-by-step, anyone can be trained to press the right keys or insert the right disk.

Obviously, any book that's going to try to teach you how to operate a computer system involves some type of step by step instructions, but it has been my experience that people like Lisa Hart or George Yoshida, who own or operate a business, or like Jerry Washington, who are entrusted with the accounting functions of that business,

are intelligent enough to understand why they should be doing a particular task if the "whys" are explained to them.

More important, having the understanding of what you're doing and why you're doing it, instead of simply going through the rote operations which may be presented to you in an instructions sheet or manual, gives you a much more comprehensive grasp of a subject. The reason for this is that when variations come up or when problems occur, you'll have a much easier time of solving the problem or understanding the consequences of the variations if you also understand why you're doing things.

This book's style is informal; I want to communicate with you in the same way I'd communicate with a friend or business colleague. On occasion I'll repeat myself, but when I do you'll know that I'm trying to reinforce an important piece of information. On occasion I'll also use slang, but this is to identify a personal opinion or preference, or to liven up what sometimes can be a dreary subject.

Despite the informal communication style, the approach to installing and running the BPI Accounting System is disciplined. Installing any computer system can cause problems, especially if you're not familiar with either the system or computer operations. The BPI System has been installed by literally hundreds of thousands of businesses and individuals, but this impressive record of success doesn't mean that installing BPI (or any computer system) is immune to failure. People like George Yoshida show that. And if your accounting system has problems, your total business has problems. For this reason, I recommend and advocate a systematic, disciplined installation of the BPI System.

Because of this approach, there are a couple of things you should know. First, this book is not an accounting course. It won't teach you principles of accounting and other things which are not tied to the operation of the BPI System in some way. The second thing is that this book is not a substitute for the advice of accounting professionals or lawyers. It can tell you how to install the BPI System, how the system works, and suggest a routine for you and your business in using the system. However, it can't advise you on the various legal and tax matters that you should know when installing and operating your accounting system. This kind of advice can only come from a professional.

Despite all the things the BPI Accounting Package can do for you, it is not intended or designed to be a substitute for sound financial advice. In my opinion, no computer system can substitute for the advice and judgment of a good accounting professional. Your individual personal and business circumstances are unique, and federal and local tax laws are constantly changing. In these circumstances the advice of an accountant is essential.

BPI can save you money with a professional because it will provide an orderly and timely picture of your company's financial condition. With this picture an accounting professional will be able to provide you with advice in a more efficient manner.

THE VALUE OF AN ACCOUNTING SYSTEM

A company's accounting system forms one of the most important control and management information systems available. For instance, in the next 15 minutes could you answer questions such as:

- ☐ As of today, what's your company's current profit (or loss) position?
- ☐ Over the last six months, have your phone expenses been trending up, down, or have they remained stable?
- ☐ In order, what are the 10 biggest expenses for your company on a monthly basis?
- ☐ As of today, what are your company's assets?

The answer to all these questions (and more) are available when you are up and running on BPI's Accounting System. This kind of information can help you make the proper business decisions in today's competitive world. In fact, once you start getting this kind of information available to you on an immediate basis, it starts becoming addictive and you soon wonder how you were able to manage your business without it.

Another value of the BPI Accounting System is that it frees you from dependency on outside bookkeeping services. For many companies, the savings can pay not only for the accounting system, but for the entire computer. If you are doing your books with a manual system, then the accuracy and speed of a microcomputer accounting system like BPI's will relieve you a tremendous burden, leaving more time for you to analyze, improve, or just plain *run* your business.

BPI

BPI is a software company located in Austin, Texas. It was one of the pioneers of microcomputer accounting software and one of the first microcomputer software companies to become a public company.

In 1983, it was estimated that BPI had 50 percent of the IBM PC and MS-DOS market. In 1984, BPI's own estimate was that it had approximately 24 percent of the total microcomputer market for accounting systems. Either way you look at it, these percentages translate to a lot of users; well over 250,000 BPI Systems have been sold, making BPI one of the most popular computerized accounting systems in the world.

The BPI System is available on a great many computers, from Apples to Zeniths, from Commodores to IBMs, from Hewlett-Packards to Sanyos. As significant new computers appear, BPI converts its system to run on these new machines.

Because of its popularity on IBM personal computers, this book will primarily use the IBM PC version (versions 1.1 and 2.0) of BPI Accounting when citing examples. We will, however, also talk about other versions of BPI, including the Apple and Hewlett-Packard versions. You should refer to the specific operating manual for the BPI version for your computer when following the examples cited in this book.

The entire BPI Accounting System consists of five major modules:

- General Accounting
- Accounts Receivable
- Accounts Payable
- Payroll
- Inventory

BPI also markets Job Cost and Time Accounting systems which will integrate with BPI General Accounting. Figure 1-1 illustrates how these systems are interrelated.

BPI Systems

Relationships between systems

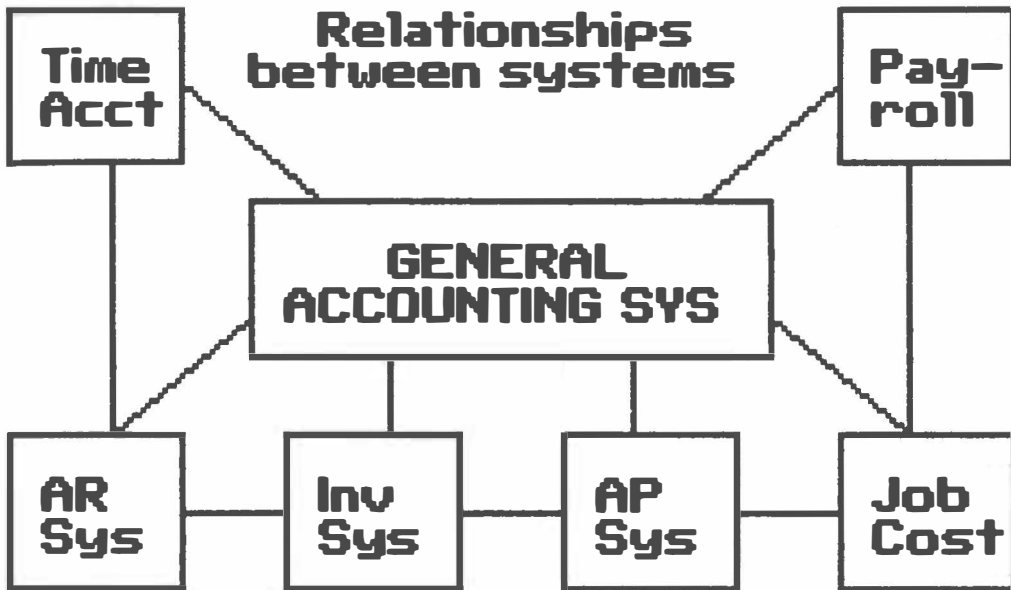


Fig. 1-1. The BPI General Accounting System forms the hub for several interrelated modules. This chart illustrates the relationships between these various systems modules: the General Accounting System, the Time Accounting System (TIME ACCT), the Accounts Receivable System (AR SYS), the Inventory System (INV SYS), the Accounts Payable System (AP SYS), the Job Cost System, and the Payroll System.

BPI also produces a product line of other accounting, data management, and training products. Some of these products are mentioned in Chapter 10, "Other Software," but the major emphasis of this book is on the "big five" accounting applications listed above.

THE HEART OF THE SYSTEM

The heart of the BPI System is the General Accounting System. The Accounts Receivable, Accounts Payable, Payroll, Inventory, and Job Costing System can all work on a stand-alone basis, or they can integrate with the General Accounting System.

The BPI General Accounting System is unusual in that it provides more than a general ledger for recording accounting transactions. Ledgers and journals record the various business activities affecting accounting information. As part of the General Accounting System, the user is also provided with an accounts receivable ledger, an accounts payable ledger, payroll ledgers, and several special journals. For many small businesses, organizations, or professionals, the General Accounting package provides all the accounting tools necessary; it may not be necessary for these companies to purchase the other modules of the system.

All BPI accounting packages share some general characteristics. They are all organized around menus, which are simply listings of activities which can be done by the system. Figure 1-2 shows a typical BPI menu.

Typically, a BPI package will have two to three menus, each menu devoted to a special function such as updating the information on the system, printing reports, or creating the system. Like the menu in a restaurant, these menus show you the various things available to you. Choosing one of these menu items often leads you to other menus and other choices.

Most BPI Systems provide a common way of backing out of operations and getting back to the main menu. On the IBM PC versions of the system, for instance, pressing one of the special keys on the keyboard (the function key F1) will let you return to the previous menu or operation.

BPI Systems also allow you to schedule several jobs. In data processing jargon, this is known as a *queue*. This allows you to schedule several reports to be printed in a row, for instance. A typical BPI menu has a collection of items which may or may not be queued. BPI usually provides a visual clue as to which items may be queued

```
BPI Systems, Inc.  
General Accounting - Version 1.10  
Menu 1 - Data Entry  
  
1 Run Queue  
3 Change/Exit BPI System  
5 Change Menu  
  
2 Erase Queue  
4 Enter Company Code and Dates  
6 Print on Screen/ Printer  
  
11 Enter Cash Disbursements  
12 Enter Cash Receipts  
13 Enter Invoice Register  
14 Enter Merchandise Purchased  
15 Enter Cash Register  
16 Enter General Journal  
17 Enter Standard Entries  
18 Enter External Entries  
  
21 Print Cash Disbursements  
22 Print Cash Receipts  
23 Print Invoice Register  
24 Print Merchandise Purchased  
25 Print Cash Register  
26 Print General Journal  
27 Print Mdse Purchased (Due Date)  
  
Data Drive : B  
Company Code: CORNER  
Password : XXXXXX  
As-Of Date: 01/01/86  
Today's Date: 01/01/86  
  
Command Queue: 21,22,23,24,25,26,27  
  
Enter Command Number ==>
```

Fig. 1-2. Typical BPI System menu. The top of the menu tells you what system and menu you're dealing with, and the major function of the menu (in this case, data entry). Next are commands dealing with the operation of the system, followed by menu choices to perform a variety of functions. Note that the menu choices to enter new information and to print reports are grouped together. The bottom of the menu provides data on the disk drive and company currently being accessed by the system, as well as information on the dates which will appear on reports (the As-Of date) and the current date.

by showing the number you use to pick that menu choice in some significant way (on the IBM PC the numbers are shown in inverse video, that is, black numbers on a white square. The menu choices which may not be queued are simply shown as white letters on a dark background, the normal lettering found on an IBM screen).

The system is very disk intensive. That is, it relies on the computer's disk drives a great deal. These disk drives are used to store programs and data, and at the end of each process the disk drives are accessed either to update the data or to load in a program. This means that the care of the disks for the system should receive a high priority from users.

BPI Systems are also generally designed to be operated in *batch mode*. The expected method of operation is for the user to gather together various pieces of data to enter to the system, manually sorting this data into groups of similar items.

Systems which rely on menus, which are disk-intensive, which have queues, and which are designed to be operated in a batch mode are systems which use proven and conservative data processing concepts. BPI states that this is done purposely, because an accounting system should be conservative in order to protect the integrity of the accounting records of the user.

BPI'S CYCLE

The BPI System follows a definite sequence in its operation. A certain rhythm is established as you go through the various cycles required by the system. These cycles are *entry*, *posting*, and *reporting*. Figure 1-3 illustrates these three steps.

The entry phase is how new information is introduced to the system. This is usually done through custom screens. After the entry phase is done and checked, the various pieces of new information are posted (recorded) to the proper journals and ledgers of the system. This posting is a separate sequence that allows you to do entry without stopping to update the appropriate records. This means in your normal daily sequence you would be entering, but perhaps not posting. (One thing to note: Until the entries are posted to the various journals and records, any reports which are produced may not be accurate. They will reflect activity only up to the previous posting or month-end.)

After posting comes reporting. This reporting can be done throughout the month. At the end of the month and the end of the year there are separate sequences which are performed by the system to reset month-to-date and year-to-date figures. The reporting can be done to the screen or to the printer. The BPI System doesn't offer a separate inquiry facility, since reports can be printed on the screen; this display of information takes the place of an inquiry.

THE GAME PLAN

Because all the BPI Systems are similar in operation, we'll concentrate on the General Accounting system. This system is usually used alone or in conjunction with the other modules of the BPI System.

The plan is to concentrate on the information you'll need to understand, install, and run this particular system successfully. The book will dwell on the chart of accounts and conversion to the system, because these seem to be areas that cause problems for people when they install the system.

The BPI Cycle

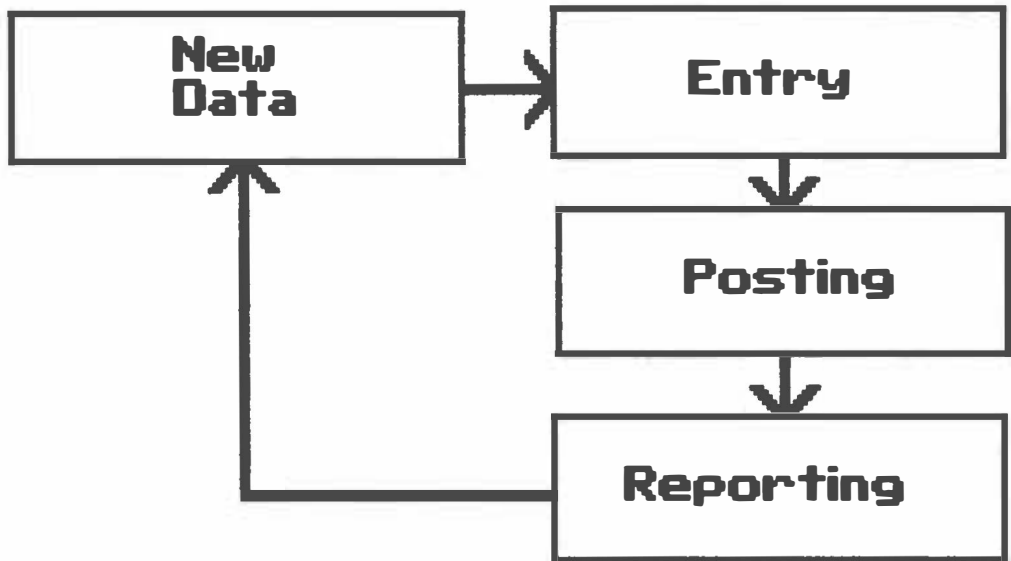


Fig. 1-3. The BPI cycle consists of entry, posting, and reporting. The entry portion of the system introduces new information to the system. Posting applies this information to the various journals used by the system to keep track of information. After posting, reporting can be done to provide revised information on the current status of the accounting records. After reporting, the system is ready for new entry. Posting and reporting do not necessarily have to be done every time new data is entered.

After a thorough discussion of the installation and operation of the General Accounting system, time will be spent on the other modules of the BPI System as well other information you should know. This other information covers ways to improve your system's performance, steps you can take to improve the security of your operations, and other types of computer programs that can be used with your BPI system. At the end of the book, entire chapters are devoted to the most common BPI system modules which will be used with the General Accounting system: Accounts Payable, Accounts Receivable, Payroll, and Inventory.

Chapter 2

Characteristics: The System and You

After an obligatory first chapter telling you who should read a how-to-do-it book and describing some of the benefits derived from actually doing whatever topic the book is written about (just like this book's first chapter!), most books tear right into a subject and have you laying bricks, building walls, or running computer programs.

By the time the second chapter comes along, I know you might be eager to sit down and actually start running the BPI program—just so you can see the screens appear and hear the disk drives spinning around. The sad fact is that most computer problems occur during the installation phase; if computer systems aren't planned and installed properly, you can run a serious risk of having the system fail. This failure may not be caused by any errors in programming, but simply because (like George Yoshida in the first chapter) the user wasn't properly prepared to install and operate this system properly.

With accounting systems, information from the past is always feeding the future. This month's closing balances (or dollar amounts) become next month's opening balances. Unlike some computer systems, where you have a fresh start every time you fire up the machine, the accuracy of accounting systems is very dependent on what you've done before; the past truly is prologue to the future. Although you're going to a computerized system like BPI, you must have good figures to start that system. Most people have heard of the old data processing adage of "garbage-in, garbage-out," and this is never truer than in accounting systems.

KNOWING WHERE YOU ARE

One of the hardest things to do is make an objective assessment of your own

business. It's only human nature to make things sound a little better than they really are, or (if a personality is bent a different way) to make things seem bleaker than they are. With a business, especially if it's your own business, so much of your life is tied up in that business that human nature often takes precedence over accurate judgment. As a result, we tend to get into trouble. ˆ

Despite this, the first thing you should try to do before installing a BPI System is to really take stock of the condition of the financial records of your business, because your current position will have a lot to do with how successful you are in installing BPI, and with how much work is involved in this installation.

COMMON CIRCUMSTANCES

In this chapter I'll discuss some common situations that potential users of the BPI System may find themselves before converting to BPI. I want to discuss the specific problems or advantages each of these situations may have and, in some cases, even to advise you to give more thought to whether you actually want to implement the BPI System.

To simplify things I'll only refer to small businesses, although the circumstances described would equally apply to large businesses, professionals, services, or nonprofit organizations. All of these groups need bookkeeping and accounting capabilities that can be satisfied by BPI.

The Brand-New Business

One situation worth discussing is a brand new business that hasn't started operations yet, but which has already chosen BPI as its accounting system.

Even with a new business, there are organization costs, money for stock (or money and equipment being put into the business by the owner), and other dollar amounts that have to be tracked. It's important to keep track of the money or equipment that you put into the business, because these amounts should appear on the business's books.

Organization costs are things like paying for legal fees, accounting fees or other expenses involved with forming the business. You should also keep track of other things like business licenses, deposits, insurance, prepaid rent, and initial purchases of merchandise. In this circumstance, the earlier you get the BPI System up and running the better off you're going to be, because one easy way to keep track of these expenses is by using the BPI system.

After start-up you can expect to have a great many additional entries to the system. BPI is organized to keep track of people to whom you owe money (payables), people who owe money to you (receivables), and employees (what else? Employees!). It also has what is called a *general ledger* to record the various categories of money coming in (revenues) and money going out (expenses).

As you start the various records or files needed by the BPI System, you should begin with the things that you actually have or think you need. This will become clearer when we discuss the various kinds of accounts that are found in the general ledger.

If you're a brand-new company, then you will have very few transactions. It is also likely that you'll have very few customers, vendors, and employees to deal with. This

means the actual transition to the BPI System will probably involve a minimal amount of effort. You'll have to establish a chart of accounts and enter the activities which have occurred prior to the start of the system. Although the initial transition is easy for this type of company, as your company expands you will probably be adding additional employees, vendors, and customers to your accounting system.

The Best of All Worlds

Most businesses that adopt the BPI System will be ongoing concerns; and this creates more problems than a start-up business because businesses can have records in varying degrees of accuracy and timeliness.

It might happen that you're one of the few small businesses in America that has your records completely up to date, completely in balance, and completely accurate. If this is the case one of the first questions you should ask yourself is, "Do I really want to convert to the BPI System?" If your financial records are in such great shape, you might be violating the old principle, "If it ain't broke, don't fix it." Even if your financial records are in good shape, you might still want to install the BPI System; keeping the records in this shape may involve a tremendous amount of manual effort or a great deal of expense because you're paying someone to do your books for you.

If you happen to be doing these accurate books yourself by hand, then the BPI System may really be something that you'll take to, because it will help set you free from a lot of tedious arithmetic and manual effort.

If you're paying someone else to do the books and they're in excellent shape, then one thing you should realize is that taking on your own accounting means you're also taking on a lot of work. The BPI System will help you with this work, but it is a lot easier to hand someone your accounting records and a check than it is to sit down at a computer and enter them in yourself.

Regardless of the cause, if your books are in good shape this is one very positive sign for a successful and easy conversion. Conversion to the BPI System will be straightforward and relatively easy. You may have to do some things like changing account numbers in order to conform to BPI's requirements, but everything else will be really a matter of learning the computerized operations, which with BPI are straightforward and full of convenient features.

The people who wrote the BPI documentation, I think, assumed that this condition will be the one most businesses find themselves in when they convert to BPI. All the accounts will be up to date and totally accurate, and the person installing the system will be very familiar with accounting terms and concepts. Unfortunately, this simply isn't true for most businesses, especially those of a size that can be handled by the BPI System.

If your books are in good shape, you should make every effort to have a parallel operation with the BPI system during the conversion. A parallel operation simply means that for a few months or so you run your old system along with the new BPI system. This involves extra work and sometimes extra expense. However, it is very good insurance that will help you audit the initial operation of the BPI System and compare it to the previously accurate system you had through other methods.

The Brown Paper Bag System

At the other extreme for businesses contemplating BPI, we find the “brown paper bag system.” This is a business that will take out a big brown paper bag around tax time, dump all their records into this bag, and carry it down to some accounting professional, who will be expected to sift through it to make some kind of sense for the owners of the business and the Internal Revenue Service (IRS).

If you're a devotee of the brown paper bag accounting system—don't be embarrassed, because there are a lot of small and not-so-small businesses which are—then you should also be asking yourself whether or not you want to adopt the BPI System. The reason you should ask yourself, however, is quite different from the person who currently has almost perfect accounting records.

Although great effort has been made to make the operation of the BPI System simple, effort also will be needed on your part to keep up with and keep track of what's going on with your business. In addition to this effort, it's also going to require interest. Not the kind of interest that banks pay, but the kind of interest that people have when they think something is important to them. This interest in the accounting system is required because you're going to have to setup accounts, ledgers, and transactions.

This process involves making some decisions about how you want things organized and how you want to view things after you've run your various reports. If your accounting records are in terrible shape and you have absolutely no interest in the financial condition of your business (short of making sure that it's not going bankrupt), then it's not likely that you're going to maintain any accounting system, no matter how cleverly designed or simple it is.

Unless you've hired a conscientious person who will run the system for you, or you've had a tremendous change of heart recently, you should really think twice before throwing away your brown paper bag. Accounting systems, especially computerized accounting systems, are going to require discipline and effort to run successfully; frankly you might be better off making some accounting professional flinch once a year when you walk in with your brown paper bag.

The Rest of Us

The majority of companies attempting to put in the BPI System are going to lie somewhere between the brown paper bag type of accounting system and the perfect accounting system described above. Where you fall on this scale will have a great effect on an easy implementation of the BPI System. The closer you are to the perfect accounting system right now, the easier your transition to the BPI System will be and the higher your likelihood of successfully operating the system with no major changes in the way you do business.

I put myself in this “in-between” category, and I suspect most readers of this book will also be here. We may occasionally get behind on updating our records, but for the most part we have a pretty good idea of where we are, in terms of our business's financial condition, and we're able to pull together and balance our books every month or when tax time rolls around.

For us, our main business is not keeping our books, but we recognize that keeping an accurate and timely set of books, and having a comprehensive accounting support

system, are both key elements that allow to go out and do our "real" business. Although it will take us a little bit of effort to bring the books completely up to date, people like us will be able to implement the BPI System with high chance of success.

A TRADE-OFF

With the BPI Accounting System, a basic trade-off was made when the system was designed. BPI takes a bit longer to install than some of the other competitive microcomputer systems on the market. On the other hand, once BPI is installed the day to day repetitive transactions, which make up 90 percent of your accounting input, can be handled efficiently and conveniently because of the setup process. It has been my experience that any extra time involved with installing BPI is more than made up for with the efficiency you gain when you operate the system.

Because of BPI's design, it's also easier to have the daily entry of accounting transactions handled by other people, even relatively inexperienced people. Data entry to BPI is organized by the people and companies you do business with: your vendors, customers, and employees. When you record a transaction for these people and companies, the various categories or accounts involved are displayed to you in a customized fashion.

You are the one who must establish these customized screens through the installation process for BPI; one of the major themes of this book will be the proper establishment of these vendor, customer, and employee entry screens. The other major themes are the proper organization of the categories you want to keep track of (also known as a *chart of accounts*), the need for a clean transition to the BPI Accounting System from your current accounting system, the need for proper backups to your accounting data, and the need for a set routine in the operation of your BPI System. Figure 2-1 recaps these major themes.

Major Themes

Establish chart of accounts

Proper set-up of custom screens

Clean transition to system

Frequent back-ups of data

Set routines for operation

Fig. 2-1. The major points stressed in this book place an emphasis on a clean and organized transition to the BPI System, as well as a disciplined approach to operating and backing up the system.

ORGANIZATION IS THE KEY

An emphasis on a successful and organized implementation of any computer system is critical to long-term satisfaction for the user of that system. It has been my experience that if you approach a computer conversion in a haphazard and disorganized way, you're simply courting disaster. 7

This disaster is not likely to come in the form of faulty hardware or problems with the BPI program. Most modern microcomputers are quite reliable; the major area of hardware concern is usually the care and backing up of diskettes. Software problems with BPI, although not impossible, are not likely to occur either. This is because BPI is a mature and well-tested system that has been sold for several years. Literally hundreds of thousands of businesses use the system for their everyday accounting needs. When problems with the system do occur, it's usually because:

1. The specifications of the BPI Accounting System do not match the needs of the user.
2. The capacity of the BPI System does not match the needs of the user.
3. The system is not installed properly.
4. The system is not operated properly.

The rest of this chapter will discuss the first two points on this list, and the rest of the book is devoted to instructions and practical advice on solving the last two points.

BPI SYSTEM CHARACTERISTICS

Unless you go through the considerable expense and effort of writing a totally customized accounting system, it's not likely that any off-the-shelf system will fill your every need and desire. This is not only a recognition that every business is in some respects unique, but that the choices for handling the accounting for these businesses leave a lot of room for accounting art as well as accounting science.

The kind of accounting art I'm talking about doesn't involve activities which may result in hurried plane flights to Brazil with IRS agents in hot pursuit. What I'm referring to are legitimate alternatives in standard accounting practices which can result in direct benefits to your company in terms of information, control, or tax liability.

For advice on these alternatives you need an accounting professional. This book can't provide it because a book can't take into account the unique circumstances of your business. In addition, any book will be rapidly made obsolete by changing state and federal tax laws. More important, although I've had extensive experience in management consulting and computers, I certainly don't purport to be a financial advisor. The only advice I offer in this area is one which I follow myself: Get yourself a good financial advisor and discuss your situation with that advisor.

Since no packaged accounting system can take into account every unique facet for every likely user, a system like BPI is written to follow standard accounting practices for most small businesses.

By the way, I use the word "small" with a bit of hesitation, because the BPI System on an 80-column screen has the capability of handling dollar amounts up to \$999,999,999. On smaller screens (such as the 40-column screen used on the older Apple II models)

the BPI System still has the capability of handling dollar amounts up to \$9,999,999. In addition, BPI also allows for multiple departments, branches, or stores in the way it handles its accounting figures.

BPI can easily handle the typical "mom and pop" store, but it also has the ability to handle very sophisticated operations. These businesses are small in comparison to companies like General Motors or IBM, but when "small business" is used in this book, it is used advisedly.

To help adapt itself to your particular business needs, the BPI System does have several areas of flexibility built in. You can establish the categories or accounts that you wish to keep track of with a great degree of flexibility; BPI has only a very small number of required accounts and account numbers which must appear in your system. If you have multiple departments, branches, or stores, you can produce single, combined, or individual reports for each department, branch, or store, at your option.

Although there are limits to the total number of accounts, customers, employees, and vendors that you can have with the system, you have a free hand on how you want to divide this limit up so you can adjust the mix of each type of account within the total number limitation given to you by the system. The data entry screens also have a great deal of flexibility in terms of what accounts will appear when you start entering data for employees, vendors, and customers.

You can also choose to have the BPI System print checks for you, or simply enter the check amounts in if you prefer writing checks by hand.

The BPI examples in this book are written on the assumption that you will be running a business where you'll be using monthly books, which is the most common practice for American businesses. (BPI can allow you to close your books on almost any schedule you want). Each month you'll record the activities against the various accounts in these books and close the books at the end of the month. *Closing the books* simply means you reconcile all the various activities throughout the month and produce particular key reports to show your financial condition. Many of these reports are available on demand throughout a month, so you don't have to wait until the month-end close to get something like a profit and loss statement.

Despite this monthly orientation, BPI allows you to establish different fiscal (or financial record) and calendar years, a sometimes advantageous procedure. At the end of a year, BPI assumes that you'll want to close out the total books for that year; many reports also give you year-to-date totals, as well as current totals on the report.

For payroll information, reports also show you quarterly and year-to-date totals. To adapt itself to certain hardware differences, BPI also allows flexibility on how you want to set up reports for printing.

SYSTEM LIMITATIONS

As with any computer software system, the BPI System has limitations. These limitations may vary for the various versions of the program; you should check the documentation on the BPI version designed for your computer to get exact limits. The first chapter of the BPI instruction manual for each version of the system provides you with detailed information on the capacity of the system for the version that you've purchased.

For the IBM Personal Computer, BPI version 2.0 has a limit of 8000 accounts in its General Accounting System. These accounts can be divided into general ledger accounts, employees, vendors, and customers. There are other pieces of information which chew up space on the BPI System, so it is possible that the maximum number of accounts might not be feasible; it depends on how you've set up the system.

BPI is a disk-intensive system. As you might recall, this simply means that most of the activity involved in the system will result in the program reading from or writing to the floppy disks on your computer. Other kinds of computer programs are memory-intensive. A good example of this are popular spreadsheet programs, such as Lotus 1-2-3 and Multiplan. With a memory-intensive program, the program and all the data are loaded into your computer's memory at one time. You perform whatever activities you want to in the program, and then you may save the results of these activities back to the disk.

During normal operation of one of these spreadsheet programs, the program is rarely looking to the diskette to get information. This means that the capacity of your computer's memory puts a limitation on the capacity of the spreadsheet. It also means that the program is very vulnerable to power interruptions, forgetting to save the results to a disk, and other mishaps that can literally wipe out your work in an instant.

The BPI System tries very hard to protect you from this type of problem by relying on automatic updates of your data to a disk. This also has some very important consequences on how you want to treat your disk, and we'll go into that later.

There's a possibility that right now you don't know if the total number of your employees, vendors, customers, and general ledger accounts is going to exceed the maximum capacity of the system. If you're in this position, then what you should do is make a list of your current employees, as well as the customers and suppliers who deal with you on a regular basis (who you want to keep track of individually).

Read the discussion in this book about general ledger accounts, and create a preliminary chart of accounts (a listing of the various accounts you want to track).

If you add up these three totals and get a total close to or greater than the maximum number of accounts allowed by BPI, then I would sit down and think things over before I implemented the BPI System. In fact, if you end up with a figure that's about 85 percent of the total capacity of the system, I'd advise you to reconsidering the installation of the BPI System.

At around 85 percent capacity, you obviously have limited room for future expansion. If you don't allow some room for expansion, you're almost certain to exceed the capacity of the BPI System within a very short time, especially if you have a new or rapidly growing business.

If your business is a rapidly growing business, you should try to have at least a 30 or 40 percent growth factor, and even this may not be adequate if your business is shooting off like a skyrocket. This kind of explosive growth is obviously a good problem to have, but it may require some compromises with the BPI System or a system different than the BPI System.

If you do find you have a large number of current accounts, there are several things that can be done to make the BPI System still usable. One is to consider whether or not you need to track purchases from your vendors on an individual basis. A lot of this has to do with the dollar amount you're buying from an individual vendor. If you spend

\$.30 on photocopies from a copy shop, this hardly warrants the creation of a special new account just for this vendor. BPI allows you to enter these types of transactions directly to your books without using up a valuable account for the creation of a vendor. The same thing holds true for customers, although with employees you will have to have an individual record for each employee because your accounting system is also capturing important tax and social security information.

Your chart of accounts shows the various categories on which you're keeping accounting information. This is another area where you might be able to combine entries. After all, unless there's an important reason for doing so, you don't have to have a special account for pencils and another one for paper clips. Most businesses would lump both these types of purchases together under a single office supplies account.

Another thing to consider is the fact that purchasing the other modules of the BPI System, such as accounts payable and accounts receivable, will expand the total capacity of the system. These other modules of the system allow you to keep detailed records, but you pass only summary information to the general accounting system. This usually provides additional capacity in most applications.

The capacity of any accounting system is a major limitation that must be checked before you actually start the installation process for your business. Usually the limitations of the BPI System are more than enough for small to moderate sized businesses.

WHAT YOU GET

The BPI General Accounting system provides a variety of ledgers, journals, and reports to organize and track essential accounting data. An important point to note is that, except for the general ledger, not all of the various ledgers and journals provided have to be used. The other ledgers and journals are optional, and should be used only if they prove useful for your business.

Ledgers

A *ledger* is a collection of accounts using the double entry bookkeeping system. To make sure that the books remain in balance (i.e., to make sure that all transactions have been entered properly), the BPI General Accounting System provides five ledgers for your use:

General Ledger. This ledger is required for all businesses using the BPI Accounting System. It's an essential repository for accounting information for the business. Other ledgers and journals found in the BPI General Accounting System are designed to feed the general ledger. The other, optional modules in the BPI System are also designed to feed the general ledger. This is the ledger which must be in balance, and it is also the ledger used to create two essential reports from your accounting system, the profit and loss statement and the balance sheet.

Accounts Receivable Ledger. The accounts receivable ledger is a more detailed listing of the amounts of money owed to you. This is primarily used if you offer sales to customers on a credit basis. If you do not offer credit to customers, then you probably do not need the accounts receivable ledger. If you need more reporting and detailed tracking of the amounts owed to you, then the BPI Accounts Receivable System will take the place of the accounts receivable ledger in the General Accounting System.

Accounts Payable Ledger. As with the accounts receivable ledger, use of this ledger is optional. It tracks the amounts that you owe to other people, but have not yet paid. If you pay cash for everything and receive no credit from your vendors, then you would not need an accounts payable ledger. If you would like a more detailed accounting and tracking of the amounts owed to others, then the Accounts Payable System can be substituted for the accounts payable ledger.

Monthly Payroll Ledger. This concentrates on the amounts paid to employees, as well as the associated taxes and other expenses involved with employee payroll (Federal and state income tax, Social Security, etc.). If you use the BPI Payroll System, then the monthly payroll register would not be necessary.

Quarter and Year-to-Date Payroll Register. This keeps track of the amount of taxes, Social Security, and other employee expenses incurred because of your payroll. Often these amounts are paid quarterly to the various government agencies involved. In addition, a year-to-date register is necessary to fill tax requirements. If you have no employees, the quarter and year-to-date register would, of course, not be used.

Journals

A *journal* is a listing of a specific type of transaction which has fed a ledger. Journals are usually broken up separately so you can examine specific types of financial activity and receive an accounting or audit trail for this type of activity.

Cash Disbursements Journal. This tracks any cash paid out from your company to others and provides a complete picture of the cash transactions which resulted in money leaving your company.

Cash Receipts Journal. This tracks in detail the cash received by your company.

Invoice Register. This tracks the invoices created by your company for your customers.

Merchandise Purchased Journal. This tracks any merchandise that you've purchased from a vendor for resale.

Cash Sales Journal. This tracks any cash sales made by your company. It is used to record the various balances found in cash registers for companies that use cash registers.

General Journal. This tracks any direct adjustments to your general ledger. General journal adjustments can change any account in the general ledger, and this journal provides a specific audit trail of what kind of adjustments have been made to your books that are not coming from other sources.

Merchandise Purchased by Due Date. This journal tracks merchandise purchased by your company and assists you in controlling your payables. It gives you the merchandise payment listing by due date.

Schedules

Listed below are the schedules you can generate using the BPI General Accounting System.

1. A listing of the general ledger, giving account number and name.
2. Customers in numeric order by a customer number you assign.

3. Customers in alphabetic order.
4. Vendors in numeric order by a vendor number you assign.
5. Vendors in alphabetic order.
6. Employees in numeric order by an employee number you assign.
7. Employees in alphabetic order.
8. Payees/payors in numeric order by a payee/payor number you assign.
9. Payees/payors in alphabetic order.
10. The provision for standard entries to be recorded on command on a monthly basis is also provided.

Reports

For individuals already familiar with accounting, here is a listing of the General Accounting System reports.

Financial Statements

Profit and Loss Statement

Balance Sheet

Trial Balance

Journals

Cash Disbursement Journal

Cash Receipts Journal

Invoice Register

Merchandise Purchase Journal

Cash Sales Journal

General Journal

Merchandise Purchased by Due Date

Schedules and Systems Information

Listing of General Ledger

Customers in Numeric Order

Customers in Alphabetic Order by Name

Vendors in Numeric Order

Vendors in Alphabetic Order by Name

Employees in Numeric Order

Employees in Alphabetic Order by Name

Payees/Payers in Numeric Order

Payees/Payers in Alphabetic Order by Name

Standard Entries

Checks

We'll go through many these reports later in the book, explaining to you what they're used for and what the information on each report means.

Chapter 3

Organizing Your Chart of Accounts

The chart of accounts is one of the most important pieces of information you will create for your BPI System. In fact, your system will not operate without one.

The chart of accounts is a listing of categories and subcategories that you will use to gather accounting information. With the BPI System, each of these categories has an account number and name, and there's a variety of restrictions on what these numbers can be and how they should be organized.

Creating the chart of accounts seems to be a topic that a lot of people have trouble with, especially if they're not familiar with accounting concepts. They can see the samples given to them as part of the BPI documentation and training, but they have a difficult time translating these examples into what they'll need for their business. If you're not completely comfortable with the concepts in this chapter, in the next chapter we'll give you a sample chart of accounts, with commentary on why each account was chosen. The chart of accounts you use should be customized for your business, but this chapter and the next will give you a good start towards the creation of this necessary part of the BPI System. If you're familiar with accounting ideas and the chart of accounts, you should read this chapter for the BPI specific information it contains, and skip the next chapter.

YOUR BOOKS

"Your books" is a generic way of referring to the various accounting records for your business. With small businesses there's often a wide variety of how these books might look and what form they might take. With the very smallest businesses, they

may be in the form of a notebook (or a ledger) where you enter either a sale or an expense, giving a date, amount, and what was involved. At the end of the month, or before tax time, you go through these ledgers and add up the various entries, summarizing them by categories.

Other businesses may use more formal ledger cards or ledger systems where you actually make a double entry. When you do this type of double entry bookkeeping by hand, making entries into formal ledgers, you're actually imitating how accounts were kept at the time of the Renaissance, when double entry bookkeeping was first invented. (When I did my own books by hand, this gave me a historical perspective to the whole process, but it didn't help me feel any better when some kind of math error occurred and I had to track it down).

THE BALANCING ACT

The type of accounting used by the BPI System is by far the most popular one used in the Western world. This is known as the *double entry bookkeeping system*. The double entry bookkeeping system was probably invented in Italy around the time of the Renaissance.

While Michelangelo was sculpting his *David* and Leonardo Da Vinci was painting the Mona Lisa, some unknown clerks in some unknown counting houses were quietly developing the bookkeeping principles which are still in general use today. While the artworks of the Renaissance might have more interest for you and have had a greater impact on Western culture, it's probably fair to say that the double entry bookkeeping system has more direct impact on your daily life.

These early systems were obviously manual systems, and the big problem when dealing with people is that people make errors. Often these errors are not important and have no serious consequences, but when you're dealing with the accounting of money, people get very picky about the accuracy of the figures involved. The double entry bookkeeping system was developed essentially as a method of catching human error.

In the double entry system, every transaction generates two entries to the books. These books were once big physical books known as ledgers, and the term *ledger* has stuck with accounting systems ever since. In these ledgers a whole series of accounts were set up.

Accounting students learn these principles by working books manually, but for the purposes of this discussion we don't have to go into great detail of how the double entry system works. The important concept to remember is that every transaction in a double entry bookkeeping system generates at least two entries, and that these entries are offsetting entries.

If I add + 100 dollars to my cash account, then I must have - 100 dollars appear some place else in the books to "balance out," or offset the increase in the cash account. For most businesses this might involve a - 100 entry in a sales account. Figure 3-1 illustrates this balancing act.

If you have a business where the only source of income is from sales, then the negative entries in the sales account will exactly equal all the positive entries into the cash account.

Balancing the Books

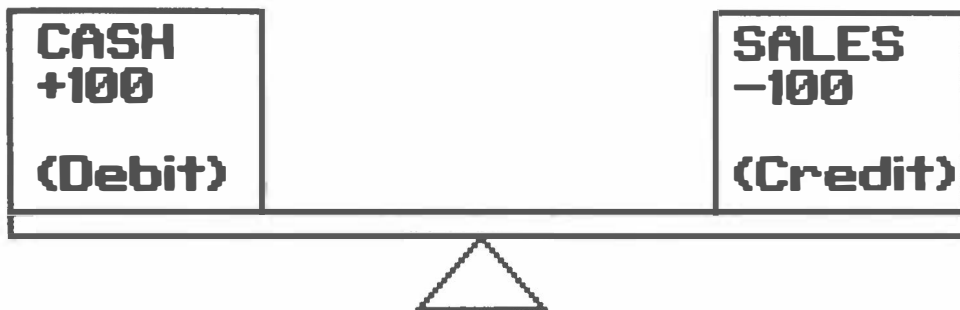


Fig. 3-1. Double entry bookkeeping is based on a "balancing act," where offsetting positive and negative entries appear in different accounts.

To a lot of people this concept of recording sales as a negative total is a problem. Their common sense tells them that if they have sales of a hundred dollars, then the sales account where they keep track of how much they've actually sold should be a + 100 dollar quantity, not a - 100 dollars. However, if you did this, then the principle of double entry bookkeeping would never allow you to "balance" the books, having all the plus entries equaling all the minus entries.

Sometimes transactions generate multiple entries to your books. Although the plus and minus entries must balance out, it isn't necessarily true that for every plus transaction, you have an equivalent minus transaction. One plus transaction can generate several minus transactions, or vice versa.

For instance, let's say you're in the business of selling widgets and flanges, and it's important for you to know the dollar value of the sales for each of these two items. To accomplish this, you set up two sales accounts, one called Sales-Widgets, and one (cleverly enough) called Sales-Flanges. Let's say you make a \$2000 sale to a company, \$1000 worth of widgets and \$1000 worth of flanges. To record these in your books, you would make a plus 2000 entry to your cash account or accounts receivable. This is a single plus transaction to your books. Since you're keeping track of your sales by product type, you would then record a - 1000 for your widget sales account and a - 1000 for your flange sales account. You'll notice that the total of the pluses and minuses to your books equal each other, leaving your books in balance. In this example one plus transaction generated more than one minus transaction for your books.

The whole point of this plus and minus gyration was to catch mistakes. If I mistakenly put a + 1000 dollars into the cash account and a - 100 dollars into the sales

account, then when I added up all the accounts with plus balances and compared them to all the accounts with minus balances, the two figures would not balance out. The pluses would not equal the minuses, and I would immediately know that I had made either an error in addition or an error in entry.

This obviously is an extremely handy thing to know. With a double entry system, I would have to make two equal errors in order for the books to balance and still be wrong. This is possible, but it's not as likely as the simple human mistake of misrecording one number or incorrectly adding a column of numbers.

Fortunately, with the BPI Accounting System you don't normally worry about whether or not an entry will be a plus or a minus, because BPI's special entry screens handle this for you. Only if you start making what are called *general journal entries* do you have to worry about whether or not you're dealing with a plus balance account or a minus balance account.

When we talk about the components of the chart of accounts in the next chapter, we'll also give you information on which accounts normally carry a plus balance and which accounts normally carry a minus balance.

GENERALLY ACCEPTED ACCOUNTING PRINCIPLES

The double entry system is not the only method of keeping books. However, the BPI System is written to conform to what are known as *generally accepted accounting principles*. This is just a long-winded way of saying that the BPI System is written in a fashion that allows it to operate the way most accounting professionals operate.

Even though the BPI System conforms to generally accepted accounting principles, there's still actually a lot of leeway involved in how you set up and operate your accounting system. This is especially true because local and national tax rules and laws can vary; often there are special rules which would improve the tax situation of many businesses if they follow the right accounting rules.

CASH AND ACCRUAL

Probably one of the most fundamental decisions that you'll have to make is whether or not you want your business to operate on a *cash basis* or an *accrual basis*. In basic terms, when you're dealing with a cash basis for your accounting records, you consider a sale to be made when you get the check in your hand. You might have a contract or a promise for payment, but you don't count that until you get the actual money into your company. The same is true for expenses on a cash basis. You might have promised to pay for some service, merchandise or supplies, but until you actually write out the check and hand over the money to the vendor, you don't count that amount in your books.

If you operate under an accrual basis, you would count a sale when you invoice an order, even though payment has not yet been received. Under this basis, when you generate an invoice or billing, the amount of that invoice will be shown as an *account receivable* to your business. This means that somebody has promised to pay, but you haven't gotten the check yet. By the same token, with an accrual bookkeeping system you would show an expense as soon as you receive an invoice from a vendor, even if you haven't paid it yet. This would be shown as an *account payable*, and would be

reflected on your books even though you might not have signed a check.

Depending on your business and your personal tax situation, there could be advantages to choosing one method over the other. Under some circumstances a cash method may be desirable, and in other circumstances an accrual method might be desirable. In addition, some states require you to use an accrual method, depending on the kind of business you're in. If you deal with inventories in your business you often don't have a choice in choosing your accounting method. You have to use an accrual system.

This is one area where an accounting professional can be a big help to you. This is especially true because most governmental bodies frown on changing from one method to the other as your whims or business conditions may lead you. You usually have to get permission to change your method of accounting; once businesses pick a cash or accrual method of accounting, they usually stick with it and don't change it. The BPI System also makes it extremely difficult for you to change your method of accounting; once you have chosen a cash or accrual method, the only way to change to the other method is to reinitialize the system for your business.

By the way, if you have doubts about which method to use and for some reason can't seek the advice of an accounting professional, then you should probably pick the accrual method simply because this is the method used by most businesses in the U.S. It is the method many people think most accurately reflects the financial condition of a business because it provides the best matching of expenses and revenues.

If you have an existing set of books that are being operated on a cash basis or accrual basis, then the easiest thing to do is simply to convert those books to the BPI System. Once again, you really should consult an accounting professional, because it may be advantageous for you to change your method of accounting when you change from your current system to the BPI System.

DEBITS AND CREDITS

In this entire discussion we've thus far avoided two words that seem to strike fear into the hearts of beginning business students: *debits* and *credits*. Although the words appear a few times in the BPI manuals, your complete understanding of debits and credits is not really necessary for the successful operation of the BPI System. This is because BPI has so many custom screens for the entry of your normal transactions with the vendors, customers, and employees with whom you deal.

From these custom screens the system figures out whether or not the amount should be recorded as a debit or a credit, and what the offsetting entry (or entries) should be to keep your books in balance. You must provide the proper account numbers for these special screens when you create the books for your company (with what is called the *company configuration menu*).

One thing that causes confusion with debits and credits for beginning business students is that the plus entries are known as debits, and accounts with normally positive balances are known as *debit balance accounts*. The minus entries are known as credits, and accounts with normally negative balances are known as *credit balance accounts*. This seems contrary to the common usage of the words *debit* and *credit*.

Since a formal understanding of debits and credits doesn't really apply to how you'll operate the system, however, we'll take the coward's way out on this issue and avoid debits and credits as much as possible for the rest of the book. But for those of you

who just can't stand to leave well enough alone, I should say that the terms debit and credit really don't have a favorable or unfavorable connotation, as they might in normal conversation. This is why you would debit (or plus) a cash account when making a sale and credit (or minus) a sales account when making the same sale, even though your common usage of the words debit and credit would lead you to suspect that you would do the exact opposite.

PLUSES AND MINUSES EQUAL 0

The plus and minus entries made to your accounting system must equal each other. This gives you an opportunity to segregate accounts in a way that allows the system to balance the plus entries against the minus entries. This segregation of entries means that the various accounts in your general ledger can be reported to you on one of two basic reports; the *income statement* (also known as the *profit and loss statement*) and the *balance sheet*. These are such fundamental reports that we will discuss them in detail, but for now you should understand that BPI forces you to place accounts into certain categories so the computer system can know how to segregate the various plus and minus entries to your general ledger.

PARTS OF THE CHART OF ACCOUNTS

The listing of all the accounts that you use for your business is called a *chart of accounts*. Each entry on the chart of accounts is simply a category where you want to record dollar amounts.

All BPI accounts are usually given a four-digit number. The first three digits of this number must fall within certain defined boundaries set by the BPI program, and the last digit is used by the BPI program to recognize things like multiple departments or locations that you want to track separately. The exception to this is BPI account headings, which have only three numbers, and which are preset for you.

BPI Headings

The various account numbers and types required by BPI's chart of accounts are grouped together under eleven possible groupings or headings. Unlike regular accounts, these headings only have three-digit numbers and they act to accumulate the totals of the various accounts found under each heading.

If you keep in mind the discussion about accounts which normally carry plus balances and others which normally carry minus balances, you'll realize that the accounts under each of these headings are grouped together so they will normally carry a balance which is either a plus number or a minus number. Notice we said "normally," because in some instances an account may carry a balance with a sign opposite the other accounts under the same heading.

In Table 3-1 you'll find the eleven BPI standard headings and the three-digit account number assigned to each heading, as well as an indication of whether the sum of the accounts under each heading will normally be a plus number or a minus number. The three-digit account number for headings is not displayed on reports. Note also that you may not necessarily have any account numbers under every heading. If you have

Table 3-1. BPI Standard Headings and Account Numbers.

Heading Name	Account No.	Balance (+ or -)
Current Assets	100	Plus
Fixed Assets	150	Plus
Other Assets	180	Plus
Current Liabilities	200	Minus
Long-Term Liabilities	260	Minus
Capital	300	Minus
Income	400	Minus
Cost of Sales	500	Plus
Expenses	600	Plus
Other Income	800	Minus
Other Expenses	850	Plus

a heading without any associated account numbers, then the system will automatically eliminate the heading when printing out listings and reports.

Account Headings, Balance Sheet, and Income Statement

The account headings are actually grouped the way they are because they are used on two key documents produced by your BPI Accounting System. These are the *balance sheet* and the *income statement*.

The *balance sheet* includes the assets, liabilities, and capital of your company. For instance, if you own a delivery truck this is an asset that will appear on your balance sheet. If you have a loan which helped you buy that truck, then this is a liability; the unpaid balance of that loan will be listed under the liabilities portion of the balance sheet. The balance sheet shows you the financial position of your company at a particular point in time. Figure 3-2 shows a typical balance sheet for a company.

As you might suspect from the name "balance sheet," the total assets should equal the total liabilities and capital. The value of the company is expressed in the Capital section. This includes the earnings accumulated since the company's inception.

Here are the headings which will appear on the balance sheet:

- Assets
 - Current assets
 - Fixed assets
 - Other assets
- Liabilities
 - Current liabilities
 - Long-term liabilities
- Capital

The remaining headings in the chart of accounts will appear on the income statement. The income statement tells you exactly what the name suggests: it tells you how much money you've made or lost in the business over a specified period of time. Fig-

CORNER HOME IMPROVEMENT CENTER
BALANCE SHEET
JANUARY 1, 1986

ASSETS

CURRENT ASSETS

REGISTER CASH	463.61	
CASH ON DEPOSIT	10,395.30	
ACCOUNTS RECEIVABLE	5,325.11	
PREPAID INSURANCE	56.32	
EMPLOYEE ADVANCES	474.50	
INVENTORY	24,347.61	
TOTAL CURRENT ASSETS		41,062.45

FIXED ASSETS

FURNITURE & FIXTURES	10,274.26	
MACHINERY & EQUIPMENT	47,829.86	
ACCUMULATED DEPRECIATION	(4,316.04)	
TOTAL FIXED ASSETS		53,788.08

OTHER ASSETS

DEPOSITS	7,466.58	
PREPAID INTEREST	11,826.70	
TOTAL OTHER ASSETS		19,293.28

TOTAL ASSETS		114,143.81
--------------	--	------------

LIABILITIES

CURRENT LIABILITIES

DEPOSITS ON CONSTRUCTION	.00	
ACCOUNTS PAYABLE	11,527.68	
SALES TAX PAYABLE	1,482.90	
FICA PAYABLE	196.12	
FEDERAL INCOME TAX W/H	241.17	
EARNED INCOME CREDIT	.00	
STATE INCOME TAX W/H	93.08	
NEW YORK CITY TAX W/H	22.93	
TOTAL CURRENT LIABILITIES		13,563.88

Fig. 3-2. One of the two most important reports produced by your accounting system is the balance sheet. This is what a typical balance sheet looks like. This particular company is a home improvement company that operates in the state of New York, but most company's balance sheets will have a similar appearance. The number in parentheses, listed next to accumulated depreciation, is a negative number. Note that the total assets and the total liabilities plus capital balance with each other, hence the name of this report.

LONG TERM LIABILITIES		
NOTES PAYABLE-EQUIP	67,312.01	
TOTAL LONG TERM LIABILITIES		67,312.01
TOTAL LIABILITIES		80,875.89
CAPITAL		
CAPITAL STOCK	24,500.00	
RETAINED EARNINGS	8,767.92	
TOTAL CAPITAL		33,267.92
TOTAL LIABILITIES & CAPITAL		114,143.81

CORNER HOME IMPROVEMENT CENTER
INCOME STATEMENT
CONSOLIDATED STATEMENT
PERIOD ENDING: JANUARY 1, 1986

	CURRENT	%	YEAR-TO-DATE	%
INCOME				
SALES	.00	***	169,404.77	92.8
CONSTRUCTION INCOME	.00	***	13,106.81	7.2
TOTAL INCOME	.00	***	182,511.58	100.0
COST OF SALES				
COST OF SALES	.00	***	103,767.47	56.9
COST OF CONSTRUCTION	.00	***	9,500.87	5.2
TOTAL COST OF SALES	.00	***	113,268.34	62.1
GROSS PROFIT	.00	***	69,243.24	37.9
EXPENSES				
SALARIES & COMMISSIONS	.00	***	17,526.30	9.6
CONSTRUCTION COMMISSIONS	.00	***	2,195.15	1.2
CASH (OVER)/SHORT	.00	***	(17.98)	.0
RENT	.00	***	7,500.00	4.1
UTILITIES & PHONE	.00	***	6,093.30	3.3
POSTAGE & FREIGHT	.00	***	1,336.24	.7
REPAIRS & MAINTENANCE	.00	***	443.60	.2
PAYROLL TAXES	.00	***	1,225.27	.7

Fig. 3-3. The other key report produced by your accounting system is the income statement. This statement shows you if you've made a profit during a particular time period.

CORNER HOME IMPROVEMENT CENTER
INCOME STATEMENT
CONSOLIDATED STATEMENT
PERIOD ENDING: JANUARY 1, 1986

INTEREST EXPENSE	.00	***	1,718.59	.9
INSURANCE	.00	***	772.86	.4
TRAVEL	.00	***	381.41	.2
ADVERTISING	.00	***	4,596.74	2.5
LAUNDRY & JANITORIAL	.00	***	1,121.45	.6
SUPPLIES	.00	***	721.69	.4
MACH & EQUIP RENTAL	.00	***	164.93	.1
BANK CHARGES	.00	***	25.40	.0
BAD DEBTS	.00	***	136.04	.1
DEPRECIATION	479.56	***	2,877.36	1.6
MISCELLANEOUS EXPENSE	.00	***	136.85	.1
TOTAL EXPENSES	479.56	***	48,955.20	26.8
OPERATING INCOME (LOSS)	(479.56)	***	20,288.04	11.1
OTHER INCOME				
INVENTORY OVERAGE	.00	***	.00	.0
OTHER INCOME	.00	***	.00	.0
PURCHASE DISCOUNTS	.00	***	1,832.11	1.0
A/R FINANCE CHARGES	.00	***	.00	.0
DELIVERY CHARGES	.00	***	361.58	.2
TOTAL OTHER INCOME	.00	***	2,193.69	1.2
OTHER EXPENSES				
SALES DISCOUNTS	.00	***	188.00	.1
	CURRENT	%	YEAR-TO-DATE	%
TOTAL OTHER EXPENSES	.00	***	188.00	.1
NET INCOME (LOSS)	(479.56)	***	22,293.73	12.2

ure 3-3 shows you what a typical income statement looks like. The following headings are found on the income statement:

Income
Cost of sales
Expenses
Other income
Other expenses

If the total of the income and other income accounts exceeds the total of the expenses, costs of sales, and other expenses accounts, then you're probably in pretty good shape because your company is making money. As promised, however, we'll discuss this in greater detail in a later chapter.

Account Numbers

Account numbers are four digits long. The last digit in this number has significance because it is used to control whether or not the BPI General Accounting System will print out multiple income statements or a single income statement. (We'll discuss this shortly.) Because it will consolidate account numbers under the 11 headings listed above, the BPI System requires the actual account numbers to fall within certain ranges. These ranges are shown in Table 3-2.

You might notice that the first account number in each account number range is simply the three digit account heading number with an extra zero. You can give the numbers and names (up to 27 characters with the IBM version of BPI) for the accounts you want to use with your books.

Within each range, the accounts will be listed in numerical order. For example, if you have two accounts under Current Assets with the names "Cash on Hand" (account number 1010), and one with the name "Cash in Savings" (account number 1020), then the 1010 account will be listed before the 1020 account on reports and listings.

Almost all computer systems and most manual systems assign numbers to the various accounts. With the BPI System, the sequence of the numbers on the accounts must follow the sequence in Table 3-2. In other words, all the asset accounts must occupy a block of numbers lower than the numbers assigned to the liability accounts.

By the way, you don't have to enter accounts in any special order when you're creating your accounts, because the system will automatically sort the accounts for you by account number.

Departments, Branches, and Locations

For most businesses, a single income statement will serve just fine. BPI will automatically do this for you if all the accounts which fall under headings appearing

Table 3-2. Mandatory Account Number Ranges.

Account Heading	Account Number Range
Current Assets	1000-1499
Fixed Assets	1500-1799
Other Assets	1800-1999
Current Liabilities	2000-2599
Long-Term Liabilities	2600-2999
Capital	3000-3999
Income	4000-4999
Cost of Sales	5000-5999
Expenses	6000-7999
Other Income	8000-8499
Other Expenses	8500-8599

Table 3-3. Chart of Accounts for Three-Division Company.

	Software Division	Book Division	Magazine Division
Sales	4011	4012	4013
Cost of Sales	5011	5012	5013
Salaries	6001	6002	6003
Freight	6551	6552	6553
Postage	6611	6612	6613
Advertising	7001	7002	7003

on the income statement (i.e., sales and expense account numbers) have the same last digit.

Some businesses, however, want to keep track of sales, expenses, profits and losses by department, branch, or location. To do this, BPI uses the last digit of the four-digit account number. To accommodate multiple departments or locations, you would use the same first three digits of an account, and repeat the account number with different last digits. For instance, let's say you had a company which had three divisions that sold software, books, and magazines. You might start constructing a chart of accounts similar to that shown in Table 3-3.

As you can see from this example, the various income and expense accounts share the same first three digits, but each department or division has been assigned a different last digit. The software division has the last digit of 1, the book division has a last digit of 2, and the magazine division has a last digit of 3. With the different fourth digit, a different income statement will be produced for each department. A consolidated income statement would also be automatically produced, combining all the divisions or branches.

The consolidated income statement would use the lowest numbered account for each account number, so you might want to add the following accounts just to have general account names in this statement:

Account	Number (for consolidated heading)
Sales	4010
Cost of Sales	5010
Salaries	6000
Freight	6550
Postage	6610
Advertising	7000

For these consolidated accounts, you wouldn't actually enter amounts to these account numbers. The system would automatically add up the balances in 7001, 7002, and 7003, and put this total with the account name in 7000 when printing the consolidated income statement.

Department Restrictions

Since you control the individual departments or locations with the last digit of the

account number, you can have up to 10 departments (0 through 9). Plus, BPI will create a consolidated income statement, summarizing the individual department quantities. This gives you a maximum of 11 income statements that can be produced by the BPI System.

If you use all 10 last digits for departments, you no longer have the chance to create a zero (0) account for the consolidated income statement, as we did earlier in this chapter. In this case, the consolidated income statement will use the account title of the account number with the last digit of zero.

For instance, if you had an account number 7000 with the name "Advertising—Books," this is the name that would appear on both the first individual department income statement and the consolidated statement.

If you are not interested in having separate income statements, but you still want to keep track of the various expenses and sales accumulated by different departments or divisions, then this could be done by changing the first three digits of income and expense accounts while retaining the same fourth digit. For instance, you could use a scheme something like the following:

Account Name	Account Number
Sales-Software	4010
Sales-Books	4020
Sales-Magazines	4030
Advertising Expense-Software	7010
Advertising Expense-Books	7020
Advertising Expense-Mags	7030

This scheme can also apply to individual product lines instead of departments, divisions, or locations. You'll note that the last digit for each account is the same. Because it is, only a single income statement will be produced by the system.

Generally speaking, if your various divisions and locations run on a more or less autonomous basis, you'll want to keep track of their profits and losses individually. This is the first method, with the different fourth digit. If you want to simply subdivide a sales or expense category into a few major component parts, the second method is probably preferable.

Before your eyes light up at the possibilities of not only subdividing the various categories but also producing separate income statements for various divisions, we would like to remind you that the total number of accounts, employees, customers and payees has an upper limit, and this type of combined numbering scheme can require a large number of general ledger accounts.

If you have to pick one numbering scheme, the first departmental numbering scheme with the different fourth digit is probably the best one to follow because it will get you both individual and a consolidated income statement. In addition, it gives you the widest range of possible account numbers.

Balance Sheet Account Consolidation

For the accounts which appear on the balance sheet, it is also possible to consolidate

accounts so that you can have both a detail and a summary level. To do this, an idea similar to the one used for producing multiple income statements is used. The last digit of the four-digit balance sheet account numbers will control consolidation.

For instance, let's say that you had a considerable amount computer equipment under your "Machinery and Equipment" asset category. You want to keep track of this equipment separately, but not have it clutter up your balance sheet report with numerous entries. To accomplish this, you could have a numbering scheme similar to the following:

Account Name	Account Number
Machinery and Equipment	1500
IBM Computers	1501
Apple Computers	1502
HP Computers	1503
Other Computers	1504

With a numbering scheme similar to the one listed above, the various accounts would be consolidated under the 1500 account number. BPI will consolidate all accounts with the same first three digits under the account with the lowest fourth digit. This allows you to keep track of the equipment of each individual computer manufacturer, but your balance sheet would only have a single entry for machinery and equipment. BPI will automatically add up the balances for each account with the same first three digits, and consolidate them under the lowest account number.

Remember, this type of consolidation works only with those accounts which fall under the headings which appear on the balance sheet. It should not be confused with the control capabilities given to you for those accounts which fall under the income and expense account categories.

You do not necessarily have to assign every account to a department or division. This holds true for the income statement as well as the balance sheet. If you have a particular division which doesn't have an expense shared by other divisions, you wouldn't have to assign an account number for it.

The 9999 Account

The account with the number 9999 is a special account. This is known as the *income transfer account* and it is used by the system to compute your profit or loss. The 9999 account is used to balance the automatic entry the system makes to keep Retained Earnings current at all times. The 9999 account balance should reflect year-to-date profit or loss. If your company has a profit, the balance of this account will be a plus amount. If your company is losing money, this will have a minus amount.

This account will only appear on the trial balance and general ledger report. You do not have to create this account when you are creating your other accounts because it will be added automatically. By the same token, you shouldn't try to delete this account because it is necessary for the proper operation of the BPI System.

Other Special Account Numbers

As with the 9999 account, the BPI System requires certain special account numbers in order to function properly with all its options. Unlike the 9999 account, however, BPI lets you choose the account number and descriptions for these other special accounts. Most of these special numbers are required only if you are going to set up the optional ledgers available to you with the BPI System, and if you identify them when you create the company configuration.

Since we will be discussing the company configuration in detail, we'll discuss other special account numbers later. However, one account number is necessary for the successful operation of the BPI System, even if you don't want special ledgers. This is the Retained Earnings account.

The *Retained Earnings account* (sometimes also called the *Capital income account*) is simply the amount of total income or loss earned by the business. This amount is necessary because it ties together the balance sheet and income statement. The account number must range between 3000 and 3999 because it falls under the capital subheading. BPI suggests an account number of 3050 and an account name of Retained Earnings.

Actual Account Numbers

Using the IBM PC version of the BPI Accounting System, in the next chapter we present a typical, item-by-item chart of accounts. Creating the chart of accounts is one of the most basic and important things that you will do in setting up your BPI System—and it's necessary for you to have a complete understanding of this step before you can create your books or convert to the BPI System.

Chapter 4

Sample Account Numbers

There are no hard-and-fast rules about what accounts are necessary or desirable for a given business. In fact, although most companies share similar accounts in certain areas, it is probably safe to say that companies tend to be rather individualistic when you look at the account names and how they assign their account numbers.

If you understand account numbers and the BPI chart of accounts, you can skip to the next chapter, because in this chapter we present a typical chart of accounts for a small business.

Although you may understand intellectually how the account system works from reading the last chapter, sometimes it is hard to translate this into actual numbers and accounts. Since this step is absolutely necessary prior to starting the BPI System, I'll offer some suggestions for accounts, account numbers, and what the accounts are used for. Remember, these are only suggestions; for your own business, you'll probably have to modify, delete, or add accounts. They do give you a good start, however, on creating your own chart of accounts for the BPI System. Figure 4-1 shows you the listing of the General Ledger report that gives you the current chart of accounts in account number order. In this suggested list, no attempt has been made either to make consolidated accounts or departmentalize accounts. I will try to keep the things straightforward and suitable for a small- to medium-sized businesses.

BALANCE SHEET ACCOUNTS

Current Assets

Current assets are things which are cash or easily convert to cash. Things like cash,

JOSEKI COMPUTER CORPORATION
LISTING OF
GENERAL LEDGER
DATE PRINTED: 10/07/85

G/L ACCT NUMBER	ACCT NAME
CURRENT ASSETS	
1100	CASH (CHECKING)
1200	CASH ON HAND
1250	PETTY CASH
1300	SAVINGS ACCOUNT
1400	ACCOUNTS RECEIVABLE
FIXED ASSETS	
1600	MACHINERY AND EQUIPMENT
1700	ACCUMULATED DEPRECIATION
OTHER ASSETS	
1810	DEPOSITS
1850	PREPAID INSURANCE
CURRENT LIABILITIES	
2100	ACCOUNTS PAYABLE
2200	SALES TAX PAYABLE
2500	FICA PAYABLE
2550	WITHHOLDING TAX PAYABLE
LONG TERM LIABILITIES	
2600	NOTES PAYABLE
CAPITAL	
3010	CAPITAL STOCK
3050	RETAINED EARNINGS
INCOME	
4000	SALES

Fig. 4-1. A typical listing of the chart of accounts. The accounts match to account numbers and descriptions given in the text.

COST OF SALES

5010 COST OF SALES

EXPENSES

6010 SALARIES AND COMMISSIONS
6550 CASH (OVER)/SHORT
6560 RENT
6570 UTILITIES
6580 PHONE
6590 POSTAGE AND FREIGHT
6600 REPAIRS AND MAINTENANCE

savings accounts, and inventory normally would fall under the current asset category. These account numbers run from 1000 to 1499.

1100 CASH (CHECKING). This account would be the amount of money you have in the checking account which is used by the business for paying its bills.

1200 CASH ON HAND. This account would be used to record the actual amount of currency that you have at your business. This currency may be money used in the cash register, or for change or cash taken in prior to bank deposits.

1250 PETTY CASH. This is cash kept at the company that has been designated for use in the payment of miscellaneous expenses.

1300 SAVINGS ACCOUNT. If your business is in a position where you have money deposited in a certificate of deposit or other interest-bearing account, it would be useful to keep account of this money separately.

1400 ACCOUNTS RECEIVABLE. This is money owed to you by customers. If you were on a accrual-basis accounting system, you would have to list accounts receivable due to you. If you are on a cash system, you would only enter items to your books as you receive the actual payment; you may not need an accounts receivable (AR) account. You should check with your accounting professional as to which type of accounting system you should be on. Generally speaking, companies with inventories are required to be under the accrual system.

Fixed Assets

Fixed asset accounts cover things like furniture, equipment, and other items which are owned by your company. Also in this category is the heading labeled "accumulated depreciation." These account numbers range from 1500 to 1799.

After you buy an item with a useful life of a year or more, federal and state federal governments allow you to depreciate the item as you use it over a period of time. Depreciation is simply a recognition that most items used in a business start to wear out and lose their value over time. Assets are not expensed when purchased, but expensed over their useful life. The depreciation expense (see below) and accumulated depreciation accounts track this reduction in value.

The amount of depreciation you can take is governed by specific laws and standard practices; this is another area where your accounting professional should be consulted. This is especially true because often the rules used by the federal government and the rules used by state government for depreciation may be different.

As assets are depreciated (or "written off") it is important to keep track of this depreciation for tax and other purposes. For this reason, the Accumulated depreciation account is created. This account is a reduction of the value of the fixed assets on your balance sheet. Since each entry to the balance sheet must have an opposite entry, you show the current year's depreciation as a *depreciation expense* in the expense portion of your chart of accounts.

The accumulated depreciation account has a minus (or credit) balance, and the depreciation expense has a plus (or debit) balance. For instance, if your business has a truck which loses \$1000 of its value this year (i.e., it is depreciated by \$1000), the depreciation expense would be increased by \$1000 and the accumulated depreciation account would have a negative \$1000 applied to it.

Since the basis of depreciation in the first place is the fact that this item is losing value, the use of both accumulated depreciation and depreciation expense accounts are a very neat way of reflecting this decrease in value.

1500 FURNITURE AND FIXTURES. This would be things like desks, shelves, bookcases, and other furniture used by your office and business.

1600 MACHINERY AND EQUIPMENT. This would be things like personal computers, typewriters, and other machinery which might be used by your business. If you have a great deal of a specific type of machinery, you might create a special account just for this type of equipment.

1700 ACCUMULATED DEPRECIATION. This was discussed in the introduction to the section on fixed assets. Unlike other accounts in this section, it normally has a minus balance. Accumulated depreciation is an example of an account which has a balance having the opposite sign of the other accounts in its category.

Other Assets

As the name implies, these are assets other than current assets and fixed assets. They are things like deposits, prepayments, and various fees. For instance, this is where you would place a franchise fee if your business has paid such a fee. If your business incurred organizing expenses when you created it, this is where you would list them. As with depreciation, you would also need an amortization account in the expense section. This is usually done because organizing expenses can be written off over a period of years, just like equipment cost. Again, this is an area where you should consult an accounting professional. "Other Assets" accounts run from 1800 to 1999.

1810 DEPOSITS. This is where you would place things like telephone and utility deposits. Even though you can't get at the money until you move, it's still an asset owned by your business.

1850 PREPAID INSURANCE. Since you usually pay your insurance in advance, this becomes an asset until it is used up. In some cases, things like prepaid insurance or prepaid rent are all simply expensed to the proper accounts. Again, this is an area where an accounting professional is valuable for advice.

Current Liabilities

Current liabilities are things which you owe and which will be due in a short period of time, usually less than a year. These accounts are numbered from 2000 to 2599.

2100 ACCOUNTS PAYABLE. This is debts you incur in your daily business operations.

2200 SALES TAX PAYABLE. If you run a business in a state that charges sales tax, this is usually paid on a monthly or quarterly basis. As this amount builds up between payments, you list it as a payable. This sales tax is money paid to you by customers which you must remit. It is not an expense to you. Sales tax payable is debited (plused) and cash credited (minused) when the remittance is made.

2500 FICA PAYABLE. This is money which is withheld from your employees' paychecks and paid very much like sales tax.

2550 WITHHOLDING TAX PAYABLE. Like the FICA payments, these accounts and these amounts must be accounted for because they are money due to state and federal authorities.

Long-Term Liabilities

Long-term liabilities (accounts 2600 to 2999) are generally things like loans and notes which are paid off over several years. Because they don't have the same immediacy as accounts payable or taxes payable, they are usually broken out on the balance sheet and noted under a separate heading in the liability section. The BPI General Accounting System follows this custom with this particular heading.

2600 NOTES PAYABLE. This could also be called *loans payable*. It is simply a way of showing the amount due to others because of loans made to the company.

Capital

The capital account heading (accounts 3000 to 3999) is where you keep track of the money you've put into the business and any accumulated profit (or loss) earned by the business since its start.

3010 CAPITAL STOCK. This is usually the original amount of money or materials donated to the business to get it off the ground. If you incorporated your business, you usually have a formal accounting of this capital stock for your contributions and the contributions of other investors. If you did not incorporate your business, you may have a less clear idea of exactly how much went to start your business. This is another area when an accounting professional can be helpful. If you have an existing set of books, there should be a capital stock or initial equity account which can be copied to this BPI account.

3050 RETAINED EARNINGS. This is the amount of the accumulated profit or loss earned by the business since its inception. Each individual yearly profit or loss will not necessarily match the figure found in this account, because this is a cumulative total.

INCOME STATEMENT ACCOUNTS

Income

The function of these accounts (numbers 4000 to 4999) is self-explanatory.

4000 SALES. This is where the sales for the company are recorded. When you make a sale, usually a cash or accounts receivable account is added to (debited), and the sales and sales tax accounts are minused (credited). Although this account has a negative balance, the total amount in this account should equal the sales for your company for the current year. If you had several products that you wanted to keep track of, the previous chapter's discussion on numbering systems used by BPI could be implemented in this area.

Cost of Sales

These accounts are numbered from 5000 to 5999.

5010 COST OF SALES. This is where you would charge the direct costs involved with each sale in order to get a gross profit amount for inventory sold.

Expenses

This area is where you keep the operating expenses for your business. This information is extremely useful for knowing what areas are using or requiring the most money from your business. The expense categories are useful also for filling out your tax returns. Expense accounts are numbered 6000 to 7999.

6010 SALARIES AND COMMISSIONS. This is where you record the pay given to your employees. Sometimes companies like to have a very elaborate set of accounts for tracking salaries and commissions. They separate salaries from commissions, and then further departmentalize the various salaries. They also divide up the salaries in terms of management, hourly workers, union employees, and other categories. As with all accounts in your chart of accounts, if this type of extra effort provides you with useful information that you can take action on, then you should certainly follow this kind of account numbering scheme. If it doesn't provide you with useful information, you really should try to keep your chart of accounts as simple as possible to reduce work and confusion.

6550 CASH (OVER)/SHORT. This is where you would record the daily overages or shortages from your cash register, because of mistakes in counting, making change, or even ringing up sales. Most cash registers are not going to balance precisely at the end of each day. If it's short, it is recorded as a plus (debit); an overage is recorded as a minus (credit).

6560 RENT. This is usually the amount paid for the premises your business occupies. A little later there's a category for equipment rental.

6570 UTILITIES. This includes heat, water, and electricity. If there are significant costs involved in each of these subcategories, you may want to set up separate accounts for each category.

6580 PHONE. This is your telephone bill. As with utilities, businesses sometimes like to create subaccounts in this area keeping track of normal service charges and long-distance calls by department.

6590 POSTAGE AND FREIGHT. This is the postage and freight you've paid for in your business. Most offices need stamps or send packages; this account tracks these expenses for you.

6600 REPAIRS AND MAINTENANCE. This is where you record various

repair costs incurred by your business throughout the year. If you have a significant cost area that you want to keep track of separately, once again this account could be broken down into subaccounts.

6610 PAYROLL TAXES. These are the payroll taxes paid to federal and state governments by the employer.

6620 OTHER TAXES. This is where you would record things like city licenses and other taxes and fees assessed against your company.

6640 INTEREST EXPENSE. This is the interest you pay on any loans which you may have on your business.

6650 INSURANCE. These are the insurance expenses that you have paid throughout the year. This includes fire, theft, and other types of insurance. If you pay for several years in advance when you buy an insurance policy, you should consult an accounting professional. You actually should only expense the expired portion in this account; the prepaid portion is an asset. Most businesses buy their insurance on a yearly basis, however, so this is usually not a concern.

6660 TRAVEL. This is where you record the travel expenses involved with your business: things like airline tickets, hotel rooms, etc.

6670 ENTERTAINMENT. This is where you record any business entertainment expenses which you have accrued during the course of the year.

6690 ADVERTISING. Most businesses have to do some kind of advertising to get customers; this account tracks it.

6700 LAUNDRY AND JANITORIAL. Sometimes laundry expenses are incurred by a business because they provide uniforms to their employees. Janitorial expenses are incurred by most businesses to help clean up their facilities. This combined account would track both these expenses. Obviously, if you didn't need the laundry portion of the account, you could simply list it as janitorial.

6710 SUPPLIES. This is where you record the expenses for all the paper clips, paper, pens, and other supplies consumed by your business during the course of the year.

6730 MACH & EQUIP RENTAL. Some businesses rent equipment and machinery on a casual or constant basis. This account is designed to record the expenses for this rental or the lease payments you're making against these items.

6760 BANK CHARGES. Most banks charge a service charge for the various things that they do for businesses. This account will record these service charges separately.

6770 BAD DEBTS. If you grant credit to customers, sooner or later you're going to come across one that doesn't pay or doesn't pay the full amount. This account allows you to write off the amount due as a bad debt. To do this, however, you have to follow standard accounting practices. In other words, you simply can't write off the debt if an account is 10 days past due. A professional can help you set up the rules for writing off bad debts for your business.

6780 ACCOUNTING FEES. We've talked about the use of accounting professionals so often that our set of books should have a special category for tracking these expenses. You could also have a special category for tracking legal expenses or other services.

6950 DEPRECIATION. In the discussion on depreciation, in the fixed assets subheading, we noted how every month a certain percentage of the full value of a piece

of equipment could be written off as an expense (or depreciated). This account provides a mechanism for handling the process. Normally you would minus accumulated depreciation (found under the fixed assets subheading) and plus the depreciation account. For many businesses, this could be a standard entry that the BPI System can handle automatically for you.

6990 MISCELLANEOUS. This is a catch all for anything that doesn't fall into the above categories. If one classification or item starts having significant dollar amounts in this category, then you really should consider establishing another account to handle it, simply so this item has visibility.

Other Income

These accounts are numbered from 8000 to 8499.

8010 INVENTORY OVERAGE. When you do a physical inventory you sometimes end up with more in inventory than you expected. This might be because a supplier overshipped to you and you didn't count the total items being received, or because some other error occurred in recording transactions. In any case, this account provides a place for tracking inventory overages.

8020 OTHER INCOME. This is a catch-all for income that the business might receive other than from normal operations. For instance, assume you sold a surplus truck used by your business for an amount greater than the depreciated book value of the truck. The difference between the depreciated book value of the truck and what you actually sold the truck for would be income. You could put this into your normal sales account, but this might distort your sales figures because it is really an unusual transaction and not part of your normal business. The other income account (and, in fact, the other income category) is designed to handle income-producing activity which is not part of your normal operations.

8030 PURCHASE DISCOUNTS. Some companies like to track the amount of money that they've saved (or made, if you want to look at it from a different angle) due to purchase discounts they've taken advantage of. The purchase discounts account provides this type of tracking. Alternatively, you might wish to record this under the cost of sales heading as a minus (credit), reducing the cost of sales amount.

8040 A/R FINANCE CHARGES. This account will provide a separate accounting of the amount of money you or your company earns from finance charges on any credit accounts you may have granted.

8060 DELIVERY CHARGES. If you charge extra for delivery of specific items or to expedite the delivery of items, this type of account would be a good place to track these extra delivery charges.

Other Expenses

These are account numbers 8500 to 9998.

8510 INVENTORY SHRINKAGE. Just as inventory can sometimes be over, it can also be short. Most often it is short, a condition known as *inventory shrinkage*. This account tracks the amount of shrinkage. For many businesses, tracking shrinkage dollar amounts is a vital signpost for the business. Any unusually large amounts in this account would indicate extracurricular activities (or just plain theft!) in your warehouse.

8530 SALES DISCOUNTS. These are discounts you've given to customers who pay their bills early or through some special promotion. Tracking this as a separate expense shows you how much this is costing you throughout the year. Alternatively, you might wish to record this under the income heading as a plus (debit), reducing the sales amount.

8540 A/P FINANCE CHARGES. These are the amounts charged to your company by other companies because you didn't pay the invoice on time. This is a good thing to track, because timely payment of your payables can be made with no penalty to your company.

9000 TEMP INSTALL ACCT. This is a temporary installation account. You will use it to balance your entries when you put the initial amounts to your accounts. After you've used it, the balance of this account should be zero and you should be able to eliminate it after closing your first month-end for your books. How this is used is described in greater detail in Chapter 7.

THE BPI SYSTEM ACCOUNT

The 9999 Income Transfer account is established automatically for you by the BPI System. It is used internally by the system to keep the Retained Earnings account current. You don't create or make entries to this account.

Chapter 5

Preparing for Conversion to BPI

Before you tear the cellophane off the diskettes to start preparing for your conversion to the BPI System, you should know that most software packages are sold with some type of restricted license or limitation. This is especially true if you've bought your BPI package through one of the large computer manufacturers who have chosen to distribute BPI, such as IBM, Apple, and Hewlett-Packard.

This agreement limits the responsibilities (or liabilities) of the companies that sell the package, and it also places restrictions on what you can do with the package. Part of these agreements is often the requirement that you use your BPI System on a single computer. Although you can make backup disks for your own use, you cannot reproduce the disk or the manual and sell, trade, or give away copies of the system.

As I've mentioned earlier, the BPI System is a disk-intensive system. These are just computer buzzwords to let you know that the system looks to the disk drives on your computer for a great deal of its information. The system is constantly writing and reading from the disk to bring in data and programs. This means the quality of the disks that you are using and the reliability of your disk system are critical to the reliable operation of the entire BPI Accounting System.

The disks on modern microcomputer systems are really amazing devices. They pack hundreds of thousands of characters of information onto a very small surface. It's important to remember this surface is very sensitive to contamination. Dust, dirt, oils from human fingerprints, or smoke from a cigarette can cling to the surface of the magnetic film and cause an error when the computer is writing to or reading from the disk.

In fact, of all the various pieces which make up a modern microcomputer system,

the disk drive and disk are probably the most fragile and prone to error. This means that exceptional care should be taken to protect the disk and its contents.

BACKUP

Since your entire accounting system and the financial records of your company are being held on disks, it is totally, absolutely, and irrevocably critical for you to make backup copies of all the disks used in your accounting system. This includes backups of the programs as well as the data. BPI usually has detailed instructions on how to make backup copies of the programs in the first chapter of each manual.

MULTIPLE BPI SYSTEMS

The individual modules of the BPI System can be operated alone or in conjunction with one other. The key element to this system is the General Accounting Package; most of our discussion will center on this particular package.

If you have a hard disk computer, you can actually install the various BPI Systems modules together. BPI is set up to handle this, and even has a special menu which will appear on the screen and let you choose which of the various BPI systems modules

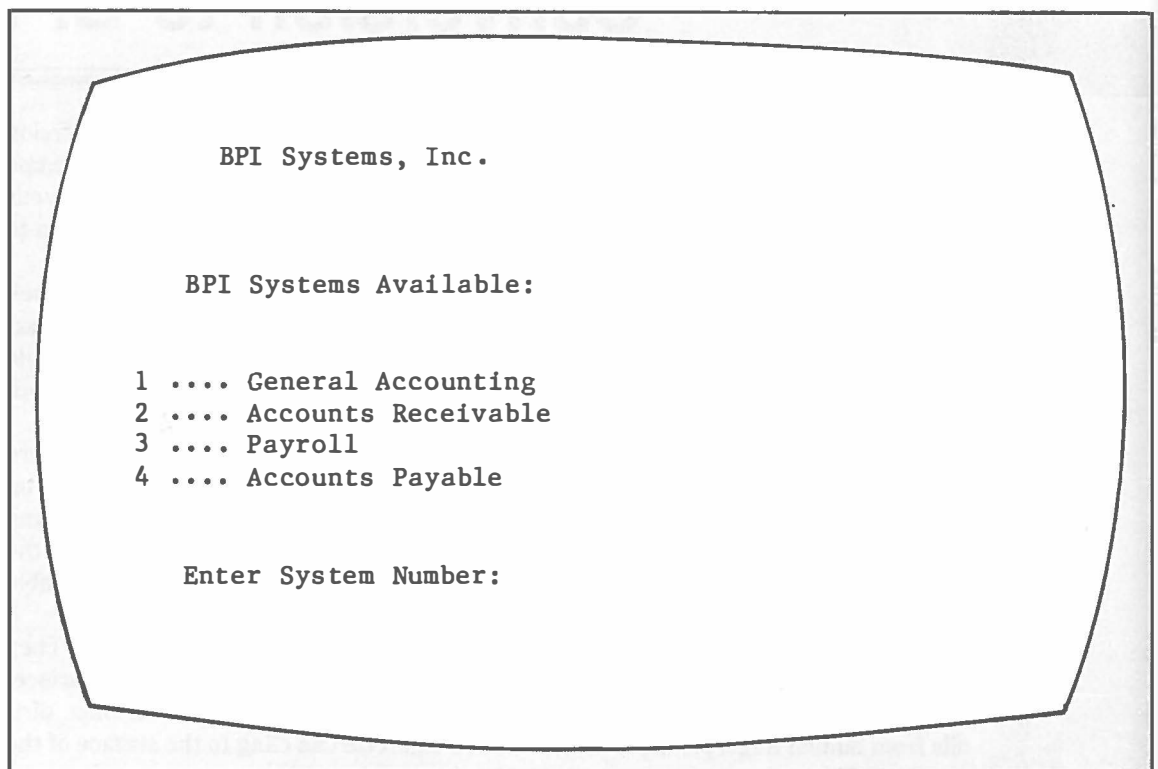


Fig. 5-1. Access screen for BPI installed on a hard disk.

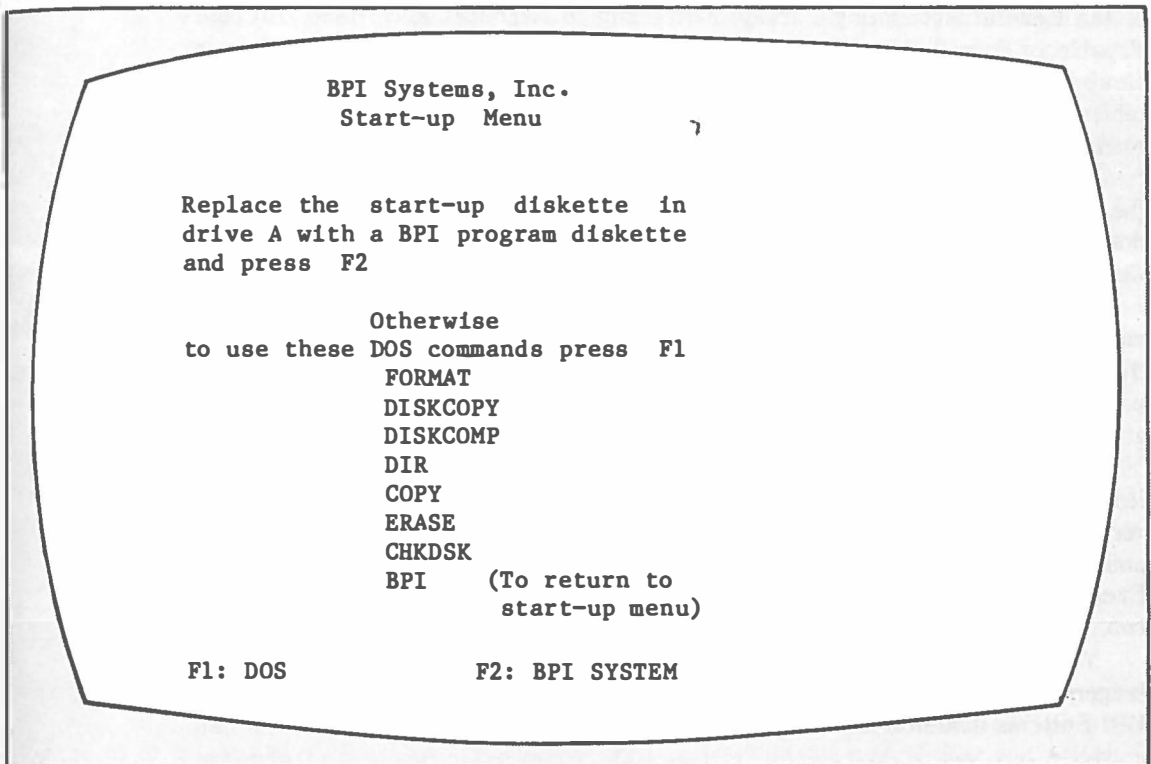


Fig. 5-2. Typical BPI start-up menu for floppy disk system.

are available to you on the hard disk. Figure 5-1 illustrates what this hard disk access menu looks like.

If you're not using the BPI System with a hard disk, you will not see this menu. Instead, you will probably be seeing something like the start-up menu illustrated in Fig. 5-2. This is the kind of menu shown when using BPI with a multiple floppy disk system. The whole idea of these menus is to try to isolate a beginning user from having to know the details of the computer's internal workings (usually called *operating system*, such as MS-DOS). The idea is to make it easy to go from one BPI module to another, whether you're using a hard disk or a floppy disk.

Since all the other modules of the system (Accounts Receivable, Accounts Payable, Payroll, Job Cost, and Inventory) interact with the General Accounting System, the General Accounting System is the system you'll install first. This primarily involves setting up the company configuration and the chart of accounts.

The same account numbers used in the General Accounting System will be used in the other system modules. Usually only a subset of these accounts are necessary for each of the modules. For instance, the Accounts Receivable System from BPI only requires those account numbers pertaining to receivables.

If you decide to install other system modules instead of using the built-in portions

of the General Accounting Package pertaining to Accounts Receivable, Accounts Payable, or Payroll, then you should read the instructions for these other modules very carefully. You often do not have to create duplicate lists of customers, vendors, and other such information found in the General Accounting Package when you install other modules.

When installing multiple systems, you can use the same BPI start-up disk for all the BPI Systems. In fact, when you're installing systems onto a hard disk you should not recopy the start-up disk to the hard disk as you install the various BPI Systems. Copying the start-up information to the hard disk once is all that is necessary.

The Accounts Receivable (AR), Accounts Payable (AP), and Payroll Package all work most closely with the General Accounting System. Therefore, you should install these three packages after installing the General Accounting System (but not all three packages have to be installed, of course). If you're going to use the Inventory Control and Job Cost Systems, they should be installed after the AR, AP, and Payroll Packages.

When you use the Accounts Receivable System, you replace the accounts receivable ledger in the General Accounting Package. You don't have to create the accounts receivable ledger in the General Accounting Package. The same is true with the Accounts Payable System and the accounts payable ledger in the General Accounting Package, as well as the Payroll System and the payroll ledger in the General Accounting Package.

You should not set up the accounts receivable, accounts payable, and/or payroll ledgers in the General Accounting Package if you're going to use the corresponding BPI Systems modules.

HOW LONG WILL IT TAKE?

The exact length of time it will take to convert books to the BPI System depends, of course, on how many accounts, customers, vendors, and employees you have, as well as how many BPI System modules you're going to install. The key to a successful and short transition to the BPI System is getting organized before the transition and knowing what you're going to do. To get to this state may require up to a few weeks of data gathering, reading, and training.

As a suggested sequence for this activity, I believe you should first read this book, then sit down with the BPI System manuals. Each BPI System has a sections about your computer and some hands-on training, usually within the first two chapters.

The first chapter or two familiarizes you with the particular computer that the BPI System will operate on. Even if you've been using your computer for a while, it wouldn't hurt to skim through this section as a refresher course on the features and keys on your computer that will be used by BPI. This is usually followed by instructions on how to make backup disks for your programs. These instructions should be followed to the letter. Furthermore, you should never use your original program disks from BPI to operate the system; they should only be used for making backups, and then they should be kept in a safe place.

BASIC TRAINING

Hands-on Training. Next, I'd suggest going through the BPI manual for its

hands-on training. All BPI manuals have a chapter which takes you through sample entries and posting activities in a step-by-step fashion. Usually it takes less than an hour to run through this section, doing all the exercises, and it's a good way to familiarize yourself with the various features of the system and the operations that you'll be doing most often. BPI provides a disk of sample company data files with which to do these exercises, so you don't have to know anything about setting up files or creating general ledger accounts to do them.

Self-Training Course. BPI produces a computerized self-training series for its accounting packages; independent companies such as ATI also produce computerized BPI Accounting self-training courses. Self-training courses are not available for all computers and for all packages, but they do cover general accounting, accounts receivable, and accounts payable, and they will run on an IBM and other popular computers. You should check with your dealer on the topics and computers covered by the self-training series by BPI and others.

The self-training courses consist of disks and a workbook. The disks can play back several lessons which teach you the various operations to be done with the BPI Accounting System. These not only cover the normal input to the system, but error correction, options to input, and other special features. These lessons work by putting the BPI entries on the screen and giving you on-screen instructions on what you are to do. They imitate the appearance of the actual BPI accounting screens that you'll be working with.

The lessons are self-paced, which means that the computer is a very patient teacher, and will wait at each lesson point for you to enter the proper information before moving on to the next part of the lesson. Many people find this type of on-screen, self-paced training an easier method to learn from, instead of the step-by-step lessons found in all BPI manuals.

You're going to have to decide for yourself if the extra training available from the disk courses available from BPI are worth the extra expense involved. Although the self-training courses run the full range of BPI operations, they don't provide any magic. One situation where the self-training course would be of a very high value is where you anticipate having several operators or high operator turnover. In this case, the self-training course is an extremely good way of familiarizing new operators with the operation of the BPI System.

If you've bought one of the courses, then I'd suggest using it next, after reading this book and the BPI manuals. Some of the material in the course will repeat the material in the BPI manual. However, since the self-training course is automated on your computer's screen, the way of displaying this information is different.

Your Hands Should Be On. If you're going to have someone else operate the BPI module or modules on a day-to-day basis, next I suggest you have the operator sit down and go through the manual and self-training course. Please note that I'm recommending that you first sit down and operate the BPI System for yourself, even if someone else will do the actual data entry. The reason for this is that the hands-on operation familiarizes you with potential problems and options available on the BPI System, putting you in a better position for judging how you want to set the BPI System up for your particular company.

GATHERING VENDOR DATA

Next, you should gather vendor, employee, and customer data. You should also gather the names of the various payors and payees.

Vendors are people and companies from whom you purchased goods or services on credit. With BPI, you assign each regular vendor a number. Vendor numbers are preceded with the letter V, and all transactions against vendors go through the same accounts. For most businesses this would mean an increase in your merchandise inventory or expenses. You would have a subsequent growth in the amount of your accounts payable, plus an indicator of any purchase discounts you might take.

Most, but not all businesses keep an up-to-date listing of their vendors. This listing can form the basis for the information you need for the BPI Accounting System. If your business does not have an up-to-date vendor listing, then you should go through your files to get the vendor name. If you're using just the BPI General Accounting System, you only need a vendor name; you assign a vendor number. If you're going to use the Accounts Payable System, then you will need vendor names and addresses. If your current manual files are set up by vendor name, then go through the files to see which vendors you buy from on a regular basis. If your files are set up chronologically, then go back over the last quarter to see which vendors you've been purchasing from on a regular basis.

When you need to gather information for BPI, the BPI manual provides a worksheet. These worksheets can be used for all the various types of data needed; it would be a good idea to make copies of these sheets instead of using the originals. For payees/payors, customers and vendors, multiple copies of the sheets should be made.

ASSIGNING NUMBERS

Vendor Numbers

Once information on vendors has been gathered, you will be able to assign vendor code numbers. These vendor code numbers run from V1 to V999 for most versions of the BPI System. Most businesses have fewer than 999 regular vendors, however, so this opens up the possibility of grouping vendor code numbers by type. There are two schools of thought here. One says that vendor code numbers will get jumbled up eventually anyway, so the simplest thing to do is to start handing them out with V1 and continuing numerically until you reach your last vendor. Then, as new vendors are added to the files, you simply continue from there.

The other school of thought says that businesses often have vendors which fall into natural groupings. For instance, you may have vendors that you deal with by phone and others that you deal with exclusively by mail. If your vendors fall into these natural groupings, then it is possible to assign blocks of vendor numbers. For instance, vendors you deal with by phone can be assigned numbers V1 to V500, and vendors that you deal by mail can be assigned a block V700 to V999. In this way, looking at the vendor number can tell you immediately what type of vendor is involved.

Choosing to make the vendor number meaningful is not a critical decision to your operation of the BPI System. It is an option you should be aware of, however, depending on what your needs are and how your vendors seem to group together.

When you convert to the system, you're also going to have a cut-off. That is, you

will have to have a point where you start entering open vendor invoices either to the Accounts Payable System or to the accounts payable ledger (which is part of the General Accounting System.) This cut-off is not a big deal as long as you maintain good control of it and know exactly which invoices are going to be entered in the BPI System and which vendor invoices are covered with your old system.

One convenient hint for doing this type of cut-off is to buy some sheets of colored paper and insert them into your manual vendor files between the invoices covered by the old system and those covered by the new BPI System. Using this colored paper provides a handy and simple way of dividing your files between the old system and the new system, and also provides information to you if you're trying to track down a particular invoice and place it in the books.

Other Numbers

There are other classes of numbers used in the BPI System. One is for employees, which are preceded by an E. The range for employee numbers is E101 to E9999. There is another class of code for customers. These codes, prefixed by the letter C, are used for recording accounts receivable, invoices, and payments; you can also use the customer codes when writing refund checks to customers. This number range is C1 to C9999.

The last type of code number is much more generalized, and it is for payees and payors. These numbers are preceded with a P.

All of these codes are preceded by a letter (V, E, C and P). With some of the special screens used for data entry, you don't have to include the letter prefix (BPI knows which letter prefix is meant by the type of screen being used), but it's a good habit to always include the letter prefix so no mistakes will be made on which code you had in mind.

GENERAL LEDGER SETUP

The next thing to start working on is the general ledger and the various accounts you want to set up. This is one area where you should get help from your accounting professional. You should also review the chapters of this book and the BPI manual that explains the numbering restrictions for accounts, the numbering schemes for departments, and consolidating accounts.

One good place to start creating a general ledger (assuming you don't have one existing in your current accounting system) is to take your business tax return and make sure you have an account for each expense item listed on the tax return. You may wish to create additional accounts for your own information; in this book we've discussed what these might be and why you might want to create them. But you'll save time and money at tax time if you or your tax preparer can simply pick off the dollar figures needed on a tax return from your books and general ledger.

If you are converting from an existing chart of accounts, then you should make an equivalency chart. This is simple enough: you just show the old account number, the new account, and what the account description is on a piece of paper. Someone like Pat Mathews, the timesharing user in the first chapter, would probably fall into this category.

The numbering scheme used by Pat's timesharing accounting service would probably not match the account numbering scheme required by BPI, so Pat would have

to take his old account numbers and assign new BPI numbers to them. He would have to be careful that his new BPI numbers properly grouped the accounts into assets, liabilities, expenses, and so forth, as required by BPI.

Sometimes this may require shuffling some numbers, for instance, if the way you have set up your departments doesn't correspond to the requirements of the BPI System. However, usually converting from an existing chart of accounts is a straightforward one-for-one conversion, assigning new BPI account numbers to the old accounts that you had.

When you have your general ledger put together, you can then start assigning the payee/payor prompts, using the appropriate accounts in the general ledger.

You should then review and fill out the worksheet for a company configuration, making sure that you have an appropriate account for each of the various ledgers, such as general and accounts payable ledgers, in your chart of accounts. It may seem obvious, but it's also important that you keep the BPI worksheets together in one place, so they don't start floating around the office and get lost before you've had a chance to enter them to your computer.

TIMING FOR CONVERSION

The ideal time for conversion is after a month-end or year-end closing of your old books, for all the systems except inventory. The ideal time for converting to the Inventory System is after a physical inventory. By converting payroll after a calendar year-end, you don't have to enter historical balances for employees.

You may not always be able to convert to the BPI System at the ideal times. For instance, you will often be converting to the Inventory System after a normal month-end close, instead of after a physical inventory. You can even convert to the BPI System at a time other than a month-end. The normal procedure for doing this would be to take the existing balances for your accounts, as of the previous month-end, and then reenter all the transactions for the current month up until the time of conversion. This way, your books are up to date. Depending on how far you are into the month, this can involve a considerable amount of data entry, so it's best to convert to BPI as soon after a month-end close as possible.

For some people using manual bookkeeping services, this can cause a problem, since you often don't get your month-end closing statement until several days into the new month. If you can't work with your existing service to get your month-end closing statements earlier, then what you will have to do is install the BPI System as of the close of the previous month, and, as with a mid-month conversion, enter all the transactions for the current month up until the date of conversion.

If you anticipate this and keep the new transactions batched together and ready for entry, this does not have to turn into a burdensome task. If you don't, going ahead and filing transactions and placing them in locations where they have to be dug out and hunted down when you're actually in the process of conversion, you can create a nightmare for yourself.

If you're a brand-new business, then BPI can be started at any time and the books can be brought up to date, as of that day, and carried forward. Usually this only involves a few transactions. If you're a business that doesn't have a set of books, then the ideal time for conversion is right after tax time, when you've at least had some

kind of accounting on the position of your company. If you have no books and you're bound and determined to install the BPI System at any time other than after tax time, then you really need the services of an accounting professional to help you put your financial affairs in order.

Remember, I've cautioned that the condition of your existing financial records will have great bearing on how easy it is to convert to the BPI System. For most businesses, converting accounting systems of any type is a task to be taken seriously. With the BPI System, this is a task which has been handled by hundreds of thousands of other businesses just like yours; a little organization and foresight will make this task relatively straightforward.

KEEPING A CONVERSION DIARY

I've found it useful to keep a conversion diary when converting to the BPI System (or for that matter, to any system of significant size.) During the process of conversion you probably will find things you have forgotten in your preparation. This may include things like a discovery that a particular supplier or customer is not assigned a number, the need for a particular general ledger account, or perhaps some adjustment to the beginning balances being entered to the books.

In all these situations, the conversion diary forms a handy single source for recording notes on the conversion. Obviously, you can do this by trying to remember any last-minute details or by writing things down on scraps of paper. However, a single source for all these notes on the conversion is extremely handy, especially if after several months you have to go back to correct some small error that might have occurred during the conversion. The conversion diary is a good checklist to make sure that things that should be done do get done, or that adjustments made to the books are recorded. This diary doesn't have to be a big deal, just an organized collection of notes. As with most things in a computer conversion, this organization will pay off.

Chapter 6

Creating Books for Your Company

Creating a company's books is usually a special command on BPI menus. For the General Accounting System, this is usually the third menu. Figure 6-1 illustrates what this menu looks like for an IBM version of the General Accounting system. You execute this command only once for each company. After you've created the company you can edit, add, or (in most cases) delete the various accounts and other information for the company. There are some restrictions on deletion, simply because you must have a zero balance in an account before you can delete it or the books would be out of balance.

Since BPI can handle multiple companies on either hard or floppy disks, you can create several companies. If you are an accounting professional, like Jerry Washington introduced in the first chapter, this facility could be quite handy. It would allow you to keep the books for several client companies on a single computer. The entry and processing routines for each company would be similar, reducing the amount of training involved for your personnel.

On the IBM version of BPI, you start out by indicating the disk drives involved with your system and where you will keep the data disk on the system. Then you input the Create Company command and execute it.

The first thing that's asked for is a six-character code for the company. This is so that BPI can differentiate between different companies' data on the same disk. This can be any combination of six characters or dashes (minus signs). Figure 6-2 shows this screen. After the company code is created, you use another command to create or edit the accounts and information for that company.

The choices for editing are general ledger, the company configuration, customer name and numbers, vendor name and numbers, employee name and numbers, payees

BPI Systems, Inc.	
General Accounting - Version C.13	
Menu 3 - Maintenance	
1 Run Queue	2 Erase Queue
3 Change/Exit BPI System	4 Enter Company Code and Dates
5 Change Menu	6 Print on Screen /Printer/Disk
59 Build External Ledgers	71 Create Company
	72 Edit Accounts
91 Exit to AURA	73 Print Schedules
	74 Change Company Code
Data Drive : B	As-of Date: MM/DD/YY
Company Code: XXXXXX	Today's Date: 10/07/85
Password : XXXXXX	
Command Queue: Empty	
Enter Command Number ==>	

Fig. 6-1. The maintenance menu is what is used by most versions of the General Accounting System for the creation and entry of the new companies and their accounts. This particular menu is for the IBM version of BPI. Menu choices 71 and 72 allow you to create a company and enter the new account numbers.

and payors, invoice register prompts, merchandise purchased prompts, and cash register prompts, plus the creation of standard entries. Figure 6-2 shows this menu.

GENERAL LEDGER CREATION

After creating the company, you next create the general ledger. You do this by adding general ledger accounts. This simply involves entering the general ledger number and the general ledger account description. This must be done after creating the company but before editing the company configuration. With the general ledger editing commands you're offered five choices:

1. Display general ledger accounts
2. Change general ledger accounts
3. Add general ledger accounts
4. Delete general ledger accounts
5. Scroll general ledger accounts

Displaying the general ledger accounts requires you to enter a general ledger account number. The same is true for changing and deleting. Obviously, these are useful

after you've created the general ledger for your company, but they're only useful in this creation phase for checking or correcting your work.

Another useful command for checking is the command to scroll the general ledger accounts. All the general ledger accounts will be displayed on the screen for you. With the IBM and other versions of BPI, the various function keys, which control starting, stopping, or terminating this scrolling are shown along the bottom of the screen.

Adding general ledger accounts is how you create your general ledger in the first place (bet you thought we'd never get around to explaining how you did this!). You simply enter the account number and the account description. Figure 6-3 illustrates the screen used for this. Later you'll enter the beginning balances for these accounts using the General Journal entry command.

COMPANY CONFIGURATION

Creating the company configuration is the next process, followed by the creation of the accounts receivable ledger, the accounts payable ledger, and the payroll ledger. Then, any payee/payor prompts that you might wish are entered, as well as the invoice register prompts, the merchandise purchased prompts, cash register prompts, and standard entries.

```
BPI Systems, Inc.                                     3.72
G/A - Edit Accounts
Company Code: (B) JOSEKI

1  Edit General Ledger Accounts
2  Edit Company Configuration
3  Edit Customers
4  Edit Vendors
5  Edit Employees
6  Edit Payees/Payors
7  Edit Invoice Register Prompts
8  Edit Merchandise Purchased Prompts
9  Edit Cash Register Prompts
10 Create Standard Entries

Enter option number:

F1: END          F2: FLUSH
```

Fig. 6-2. After creating a company with the BPI System, the next step is to enter the general ledger account numbers. This is done with the Edit Accounts menu. Choice 1 on this menu allows you to add general ledger account numbers. This must be done before attempting to edit the company configurations.

G/A - Editing G/L Accounts: (B) JOSEKI 3.72.1

Adding New G/L Accounts

No. : 6590
Name: POSTAGE AND FREIGHT

Enter New G/L Account Name:

Fig. 6-3. Adding new general ledger accounts is as simple as entering the account number and the account name. Remember that account numbers must conform to certain restrictions.

The company configuration gives the system needed information about your company and your accounting requirements. It tells the system your company name, the account numbers used with the optional ledgers, and a variety of other information detailed in the BPI instruction manual. Figure 6-4 shows the menu screen used for entering this configuration.

Aside from creating the general ledger and the company configuration, remember that creating the other ledgers and prompts is optional. Most businesses will use most of these ledgers and the corresponding special entry screens that will ease the workload for your standard accounting entries. Some businesses will not use one or more of these registers. For instance, a business that deals only in cash sales may not need the accounts receivable ledger. A business which does not use a cash register would not use the cash register prompts, and so on. One of the nice things about the BPI System is the flexibility it has for matching your accounting needs.

Multiple Companies

You can store multiple companies on a floppy or hard disk for most versions of the BPI System. Since each company may be different, BPI requires to you establish a new company configuration when you create the company. Any accounts that you list in this company configuration must be in your general ledger.

The company configuration accounts are the accounts which will be automatically debited or credited when you use the various custom screens of the BPI System. With the payee/payor option you can also create a custom screen for each person from whom you're usually receiving money, or to whom you send money. Using the IBM version of BPI general accounting, the following items would make up the company configuration.

Your Company Name

Your company name can have a maximum of 70 characters, upper- and lowercase; when you create the company configuration, you would enter in the company exactly as you wish it to appear on all journals and financial statements. Only a single line can be used for company names, so if your company is a subsidiary of another organization and you want to show this on your financial reports, then this information should be entered along with the company name in this single line, something like "Skyhooks, Inc., a Division of American Widget."

Password

Passwords are optional with BPI. A password can have up to six characters or

BPI Systems, Inc. 3.72.2

G/A - Edit Company Configuration

Company Code: (B) JOSEKI

Printed Company Name:
JOSEKI COMPUTER CORPORATION

None <--Password

3050<--Capital Income Account

1400<--Invoice Register A/R Account

1<--Invoice Numbering Option

0<--Invoice Register Cash Account

2100<--Merchandise Purchased Journal A/P Account

0<--Cash Disbursements Jnl Cash Credit Account

<--Print Check Indicator

<--Purchase Discount Account

0<--Cash Receipts Journal Cash Debit Account

N<--Cash Register Journal Indicator

Enter Cash Register Journal Indicator (Y/N)

Fig. 6-4. The company configuration gives the system important information on how you want your company's name to appear on reports, what password (if any) should be used to restrict access to the system, and what account numbers are being used for specific purposes. Note that the accounts to the general ledger must be entered before trying to edit or enter the company configuration, because the system will do a double check to make sure that any account numbers entered are valid account numbers from your general ledger.

numbers. Unless you are the only person with access to your computer and your financial records, I suggest using a password. In fact, I suggest not only that you use a password, but that you change that password on a periodic basis.

To either use your system or to change the password, you must know the old password. Make sure you write down what the password is and keep it in a safe place, preferably away from the office. If you happen to forget the password and lose the piece of paper on which the password written down, you could be facing the rather unpleasant prospect of not having access to your company's financial data.

You can skip the use of a password simply by pressing the Return key when creating your company configuration. If you do this, when you operate the system you would simply press the Return key when you are required to enter the password. This makes the system slightly easier to use, but this ease is bought at the expense of less security for your accounting records.

Capital Income Account

Part of the company configuration is the entry of special account numbers, so the system knows what general ledger account to use for various operations. You've previously created these account numbers in the general ledger, but BPI doesn't know to use these particular numbers for specific operations until you explicitly tell it to do so in the company configuration.

The capital income account is usually called "Retained Earnings" or "Capital Income." This account must be created in your general ledger and it is used to tie together the balance sheet and income statement reports. On the IBM Personal Computer, the capital income account is restricted to a account number within the range of 3000 to 3999. It is used for the offsetting entry that the system automatically makes to the Income Transfer account (account 9999) to update capital for the net income or loss amount. See the discussion of accounts 3050 and 9999 in Chapter 4 if you need more information on these two accounts.

Invoice Register and Accounts Receivable Ledger

The Invoice Register account numbers are optional, and are used only if you are setting up the accounts receivable ledger. If your business does not grant credit to customers, you may find it unnecessary to setup these accounts.

When you create an accounts receivable ledger using the invoice register, you'll automatically have debit (plus) entries to the accounts receivable account, and credit (minus) entries to the sales account. This may sound strange at first, but the sales account actually maintains a negative balance to conform to the requirements of the double entry bookkeeping system.

With the IBM and other versions of the BPI System, the account to which you want to have the debit entry made to must have a number in the range of 1000 to 1499. This would usually be an accounts receivable account. If you are not setting up an accounts receivable ledger, the BPI version for the IBM PC has you enter a zero (0) to this account number. This is the code for BPI to know that you're not using this ledger at all.

You can show up to 11 general ledger account numbers as prompts for your in-

G/A - Cash Register: CORNER 1.15

Month: Day: Year:

INCOMING CASH			
2030	SALES TAX PAYABLE	\$	.00
4012	SALES-LUMBER	\$	.00
4013	SALES-GENERAL	\$	.00
8029	OTHER INCOME	\$	.00
1010	REGISTER CASH-OPEN	\$	.00
CASH PAID OUT & DEPOSITED			
5013	CASH PURCHASES	\$	.00
6799	MISCELLANEOUS EXPENSE	\$	.00
1021	CITY NATL-DEPOSIT	\$	.00
1010	REGISTER CASH-CLOSE	\$	.00
6559	CASH (OVER)/SHORT	\$	.00
Total \$			.00

F1: END
F2: FLUSH

Fig. 6-5. This is the General Accounting cash register screen. This screen allows daily entry of cash register activity for companies using cash registers. The prompts can be customized to match the nomenclature found on the cash register tape.

voice register screen. These account numbers must correspond to existing accounts in your general ledger. You fill in only the account number. The account name that you've given in the general ledger will appear as the prompt is shown on the screen. Figure 6-5 shows what this screen will look like.

If you've set up your general ledger accounts to produce multiple income statements for stores, branches, or departments, you should select only the most frequently used account numbers that appears as prompts. Under these circumstances, the maximum limit of 11 may not be enough to satisfy the needs of all the accounts established. One way around this is to remember that if you leave space (i.e., don't specify all 11 accounts) you can always enter an account number manually.

If you decide to use the accounts receivable ledger, the IBM and other versions of BPI allow three options for invoice numbering. With one of these options, the system will automatically number the invoices consecutively from 1 to 99999. With the second option you are required to have a number for each invoice, and you must enter this number manually. Each number can be a combination of up to eight letters, numbers, or special characters. With the third option, you are not required to have an invoice number for each invoice. You can, however, enter any combination of eight letters, numbers, or special characters if you do wish to record an invoice number.

Which of the three options you use depends very much on how you do business. If you're not using preprinted invoice forms or counter tickets to record sales, then the first option is a very convenient way of assigning a sequential number to every transaction. If you do use preprinted forms and counter tickets, then the second option assures that the number on these forms must be entered for the invoice to be recorded properly. The third option allows you to either record an invoice number or not. This option, of course, has the most flexibility in terms of how you enter invoices to the invoice register, but it does mean that an inattentive operator can skip entering an invoice number.

Cash Sales

If you are going to record cash sales, the IBM and other versions of BPI have a special account number that you can use for this purpose. If you do not wish to ever enter cash sales to the invoice register, you would fill in a zero for this account number.

Merchandise Purchased Journal

Many companies buy merchandise for resale. BPI provides a special journal for accounting for this type of purchase, which normally is made on a trade-credit basis. In other words, you will be billed by the vendor.

When setting up the merchandise purchased journal, you must set up an account in the 2000 to 2599 range with the IBM version and others of BPI. Usually, this is an accounts payable account. If you are not setting up a merchandise purchased journal, you would fill in a zero for this account number.

When you record merchandise purchased to the merchandise purchased journal screen, you can choose up to 12 general ledger accounts to appear as prompts. If 12 will not handle all the possible combinations of what you might want to list on your merchandise purchase prompts, then you should not use all 12 possible numbers. This will leave room so that you can manually enter additional account numbers or alternate account numbers on this screen. For instance, only entering 10 automatic account number prompts will leave room at the bottom of the screen for entering two general ledger account numbers.

Cash Disbursements Journal

The company configuration requires you to enter the general ledger account that you want reduced as you write checks and record cash payments. This account is automatically reduced when you enter transactions to the cash disbursements screen. On the IBM version and others of BPI, this is an account number in the range of 1000 to 1499. Usually this is the bank account against which you normally write your checks.

There is a technique for showing checks written against bank accounts other than the cash disbursements journal control account. This involves entering offsetting entries, and can be a little complicated until you get the hang of it. Basically, you enter the transactions to the normal cash disbursements screen, then you make a plus (debit) entry equal to the amount of transactions to your regular bank account (to compensate for the automatic minus (credit) transaction of this amount that the system is going

to make). Then, on the same screen, you enter a minus (credit) entry equal to the amount of the transactions for the account number of the bank account you really want to deduct the money from. The net effect of all of this on the regular bank account is zero, and the money comes from the other bank account.

Most businesses write their bills against a single bank account, so the BPI method of setting up a single bank account for the cash disbursement screen is quite satisfactory. If you're not setting up a cash disbursements journal, you would fill in a zero to this entry. Most businesses will use cash disbursements journals simply because they want to keep track of what money is being paid out.

Checks

Your business may or may not wish to have the system print checks based on your entries to the cash disbursements journal. With the BPI System you can indicate whether or not you're going to print checks in the company configuration menu. If your normal way of doing business is to write checks by hand and then enter them later to the cash disbursements journal, you would tell the system not to print checks.

If you would like the system to automatically write checks, there is a way of suppressing the printing of checks as you do the individual entries to the cash disbursements journal—you put a pound sign (£) in the address space for these entries. Therefore, telling the system to print checks doesn't mean that you'll have the system write checks for everything that you enter.

Another option for the cash disbursements journal is to indicate whether or not you plan to receive discounts and if you want to keep track of the discounts that you take. You can simply skip keeping track of discounts and enter the net amount of the checks; if you do want to see how much money you're saving with discounts, you can enter the gross amount of the check, then the amount of the discount, and the system will calculate the net amount. To do this, the system needs a discount account number in the range of 8000 to 8499. If you don't plan to record discounts, or if your business doesn't receive discounts from your vendors, then you'd fill in a zero for this account number.

Cash Receipts Journal

Most businesses also need a way of keeping track of any cash receipts, and BPI provides a special journal to do this. BPI wants to know the account number to increase when you receive cash. Logically, this is the account where you keep your cash.

Just to make sure that things are clear, by the way, when I refer to "account" I am talking about the general ledger account number, not the bank's checking or savings account number. You can equate a general ledger account number to a particular bank account for your business, but the number that you would use for this is not normally the same number that you would have as your account at the financial institution. For instance, you could use a scheme such as:

1020	Checking - Liberty Bank
1030	Checking - Security Bank

Cash Register Journal

If you're using the cash register journal to record the ending totals for your cash register, you can have up to 16 prompts and headings available on the screen.

This is different from the other prompts that you've used with BPI, because you can enter a line as a heading for the screen. This allows you to put a custom "form" on the screen which corresponds to the printouts that most cash registers give when you total out at the end of the day's business. It also allows you to enter any description you wish and associate it with a general ledger account number. That is, the screen description doesn't have to match the account description.

If you're keeping track of the various components of cash register activity in separate accounts, as most companies do, then you can setup the prompts on the screen to match the cash register, allowing the entry of the daily cash register sales to be done in an efficient manner. One thing you may wish to consider is an account for the cash short or over, which commonly occurs in cash registers.

Payroll Accounts

Most businesses have employees, but keeping track of all the financial data you have to for an employee can be a real headache. BPI's Payroll System (discussed in a later chapter) can help with this, but even the BPI General Accounting System has some nice features to help you keep track of payroll accounting.

Depending on the size of your payroll, you may be required to file or deposit monthly or quarterly the employees' withholding tax, social security, and other federal deductions. State income tax, unemployment insurance, and other deductions may also have to be filed monthly or quarterly. BPI has a special report which keeps track of these deductions on a monthly and a quarter-to-date basis, making it very convenient to fill out the various forms.

When you enter payroll information, BPI provides a special entry screen. This screen can have up to eight prompts for general ledger accounts. You enter the gross amount of the payroll and the various deductions to these account numbers; the net pay amount will be figured out for you by the system.

When entering the deductions, you enter them to the prompts on the screen as minus amounts. BPI cautions you that once you've entered a payroll account and had some activity against those accounts, you should not delete a payroll account until the end of a calendar year.

A feature of the payroll screen is that you can change the names of the accounts on the screen prompts. The names do not have to match the account names found in your general ledger (although the numbers, of course, do have to be the same). For instance, on your general ledger you may have an account named "FICA Payable." The prompt on the screen, however, could be something like "FICA Withheld." You have 25 characters to indicate the name on the prompt.

The BPI General Accounting System will keep track on a month-to-date, quarter-to-date, and year-to-date basis, by employee, for their various salaries and payroll deductions, as well as the net pay as indicated on the screen. It will not calculate the amount of the various deductions for you. This is something you will have to do manually unless you buy the BPI Payroll System. The calculation of deductions involves either apply-

ing a percentage to the gross total or looking up deductions on various charts provided by federal and state governments.

CUSTOMER, VENDOR, AND EMPLOYEE NUMBERS

After entering the company configuration,³ you would enter the customer, vendor, and employee numbers. These numbers have been discussed before, but here's a quick review to save you from flipping back, before I give you the information on how actual numbers are entered.

The numbers for customers, vendors, and employees all follow the same general rules. Each of the individual numbers is preceded by a different letter (C for customer, V for vendor, E for employee.) These numbers are a one- to four-digit (three- to four-digit for employees) numbers ranging from 1 to 9999 (e.g. E101, V128, V2, C847.)

For each of the three classes of numbers you can have repeats on the numeric portion. For instance, you can have a C101, E101, and V101 all at the same time in your system. Attached to each number is a 27-letter description. For most versions of BPI these descriptions can be upper- and lowercase, however, I suggest using all uppercase when putting in the name or description of the company, employee, vendor, or customer.

When you start entering these numbers, the system will automatically increment each number by one as you move your way through your customer list, vendor list, or employee list. You can enter a new number and the system will start incrementing that new number by one for subsequent entries. As discussed previously, you can use these numbers sequentially or you can group your customers, vendors, and employees and use different blocks of numbers to indicate what grouping each individual, customer, vendor, or employee belongs to.

For many of the journals where you customarily deal only with customers or only with vendors, you do not have to put the first letter of each customer, vendor, or employee number in. Get in the habit of doing so anyway, just to avoid confusion.

If you plan on using the BPI Accounts Payable, Accounts Receivable, or Payroll Systems, you will not have to enter the corresponding vendor, customer, and employee numbers to the General Accounting System.

PAYEE/PAYOR PROMPTS

For many businesses, the customer, vendor, or employee numbers and the corresponding ledgers and special screens will cover the bulk of the business. However, BPI provides a fourth class of screens, payees and payors, which are very flexible and powerful. A payee or payor is someone you pay or receive payment from on a regular basis, but have no need to track as vendors, customers, or employees. Their transactions are not accrued as receivables or payables.

What makes these screens so powerful is that you can customize the input screen for these payees and payors, assigning up to two general ledger account prompts for each. The numbering scheme used for payees and payors is the same used for customers and vendors. There's also a 27-character description or name attached to each payee and payor.

When you create a payee or payor number, you can specify a custom prompt for

up to two general ledger account numbers. If you happen to create a payee or payor that doesn't have any specific account prompts, you would enter a zero when asked for the account numbers. If you have a payee or payor with only one prompt, then you would only enter that general ledger account number.

An example of this might be for telephones. The telephone company might be given payee number P100. When you enter this in the cash disbursements screen, the system would know that you automatically want to reduce the amount of your cash account to represent the check you are writing to the telephone company. When you setup the P100 telephone company account, you might give it something like 6100 as the account number, which could be your telephone expense. The same thing can be done for other payees/payors whose financial transactions would not be covered by the account numbers that you normally specify for your vendors, employees, and customers.

STANDARD ENTRIES

Most companies have routine entries which are done every month. These cover things like monthly depreciation expense for equipment, amortization of organization cost, and other recurring transactions.

BPI has a special type of transaction, called *standard entries*, which covers this type of activity. Each standard entry has at least one account to be debited and one account to be credited (or one account to be debited or one to be credited). Figure 6-6 shows what a standard entry screen would look like; this particular example has only two account numbers, but actually you can have a maximum of 12 account numbers for each individual standard entry. This is to compensate for situations where one account might be debited and three or four accounts might be credited.

CORNER HOME IMPROVEMENT CENTER GENERAL JOURNAL				
AS OF 01/01/86			PAGE 1	
DATE	JE#	DESCRIPTION	DEBIT	CREDIT
01/01/86	37	6789 DEPRECIATION	479.56	
		1550 ACCUMULATED DEPRECIATION		479.56
** STANDARD ENTRY **				
TO RECORD DEPRECIATION FOR CURRENT MONTH				
TOTALS			479.56	479.56
			=====	=====

Fig. 6-6. Standard entries are entries which happen every month. An example of this might be a regular loan payment, or it could be the amount of monthly depreciation generated by the equipment owned by the company. Standard entries are very handy because you can automate the recording of these amounts.

In addition to the account numbers, you can have up to six lines of 35 characters each for an explanation of what the standard entry involves. You don't have to use all six lines for explanation, by the way. An explanation could be smaller, but I don't suggest putting in a standard entry without a line of explanation telling exactly what it is. This note can be very short, something like "Amortization of organizing costs."

You will have to tell the BPI System explicitly to process the standard entries every month, but with these entries you can save entering repetitive accounting transactions which occur at predictable one month intervals.

EDITING PROMPTS AND INFORMATION

You can edit general ledger accounts at any time. You can change names but not account numbers. If you wish to change a general ledger account number, you must add the new account and delete the old, but you cannot delete a general ledger account until it has a zero balance and no current activity.

The usual procedure is to add the new account number, transfer the balance from the old account number to the new account number, then post your ledgers and perform an end-of-month close. After the end-of-month procedure has been performed, you can delete the old account number from the general ledger because it will have a zero balance and no current activity. Naturally, once you're operating this system you'd probably want to wait until after you have performed a normal end-of-month close to do this type of operation.

Since the numbering sequence of general ledger account numbers controls where it will appear on reports, you might want to change some numbers early in the operation of the system to change the appearance of these reports. The same screen you use to add general ledger account numbers are used to change the name of the account or to delete the account.

A company configuration can be edited after you've executed the end-of-month command, and before you make any new entries. Customers may be added or customer names can be changed at any time. You can delete a customer number only after you've ended the month and only if the account for the customer has a zero balance and no current activity. Once you've deleted a customer number you can reassign the deleted customer's number to a new customer.

Vendors can be added or the names can be edited at any time. You can delete a vendor only after you end the month, and only if the account has a zero balance and no current activity. This operation is similar to modifying customer account.

Because of the quarterly and yearly gathering of employee data, there are some special rules that apply to them. As with customers and vendors, you can add or edit an employee's name at any time. However, you can delete an employee only after you process the end-of-fourth-quarter command (unless no amount has been entered to the employee's record). This effectively means you can delete employees only once a year. This is so information can be retained for W-2 forms at the year end. After you've deleted an employee you can reassign that employee number to another employee.

You can add and edit the name of a payee or payor at any time. You can delete a payee/payor only after the end-of-month. The prompts that appear for a payee/payor can be changed at any time. The same is true for the invoice register prompts and the merchandise purchased prompts.

Cash register prompts can be changed only after the end-of-month, and before making any new entries to any of the journals.

Standard entries are a little cumbersome to edit. What you have to do is recreate all the standard entries. If you have four standard entries for your books, and you want to change or delete one of them, you must reenter all four standard entries. This can be done at any time.

THE NEXT STEP

After you've created the books for your company, you can input your beginning balances and start operations. The next chapter will cover these steps in detail.

Chapter 7

Starting Balances and Daily Routines

Before I get started in this chapter, I would like to take this one last opportunity to emphasize the importance of having a balanced set of books before converting to the BPI System. If you're familiar with accounting, you can just skip this paragraph and go on to the next paragraph. If you're not familiar with accounting, you should keep in mind that your beginning balances must be accurate, and that your books must be in balance before you attempt to convert to the BPI System. If your accounts aren't right at the time that you enter them to the system, then the system is not going to make them right.

INITIALIZING YOUR BOOKS

Initializing your books is relatively straightforward after you've created the general ledger and company configuration, as well as the employee, vendor, customer, and payee/payor numbers. There is a "trick" to this initialization, however. This trick is the 9000 temporary account, which is used during the initialization to allow the entry of the beginning balances to each account.

You can make adjustments after the initial entry if you find that mistakes have been made, but making adjustments to improve the accuracy of your records is not the same thing as putting in knowingly inaccurate records and hoping to adjust out the problems later.

The Trick Account

You enter your beginning balances to the BPI General Accounting System using

general journal entries. General journal entries usually will allow a dozen or so transactions per screen (check the instructions for the exact version of BPI you are using for the total limit). Figure 7-1 shows you this screen.

The transactions on this screen must balance out. In other words, each screen full of general journal transactions should have debit (plus) transactions and credit (minus) transactions which equal one. If the plus transactions and the minus transactions equal another on the screen, then the entry total for the items on the screen will be zero. If the total is not zero, then the system will not accept the general journal transaction. For most normal entry to the general journal this is absolutely no problem. General journal transactions rarely involve more than a few accounts. In fact, they often involve only two accounts (one with a plus transaction and one with a minus transaction).

When you enter your initial balances to the BPI System, however, it is often very inconvenient or even impossible to pick combinations of accounts which will exactly balance each other. After all, you're entering the beginning balances for each of these accounts, and although your total books may be in balance in terms of minus transactions equaling plus transactions, it may be difficult to get each general journal screen to balance out. This is where the 9000 temporary account comes in.

With the 9000 temporary account, each general journal screen that you use to enter

G/A - General Journal: (B) JOSEKI				1.16
Month:12	Day:01	Year:86	JE#:1	
1100	CASH (CHECKING)	\$	2,786.54	
1200	CASH ON HAND	\$	257.00	
1250	PETTY CASH	\$	57.86	
1300	SAVINGS ACCOUNT	\$	9,800.00	
1400	ACCOUNTS RECEIVABLE	\$	5,437.50	
1600	MACHINERY AND EQUIPMENT	\$	13,460.00	
1700	ACCUMULATED DEPRECIATION	\$	3,846.48-	
1810	DEPOSITS	\$	950.00	
2100	ACCOUNTS PAYABLE	\$	1,257.37-	
9000	TEMP INSTALL ACCOUNT	\$	27645.05-	
Total \$			27,645.05	

Fig. 7-1. General journal entries are used to enter your initial starting account figures. Notice that account number 9000 balances out quantities entered for regular accounts. The general journal screen provides a convenient running total of the amount entered for each of these accounts, making it very easy to know the proper quantity to enter to the 9000 account. Read the chapter carefully for information on how to make certain that your books are in balance after entering your initial figures.

beginning balances for your books will have a 9000 account entered as the last transaction on the screen to balance the total of entries.

The entry of a general journal account requires you to put in the account number and the amount involved with that account. This amount will usually be a plus number or a minus number. As you enter individual transactions to the general journal screen a total is shown to you at the bottom of the screen. If you try to end the entry before this total equals zero (i.e., the pluses and the minuses on the screen balance out), the BPI System will give you a series of rude beeps and flashing error messages, telling you that the balance for the entry does not equal zero.

To prevent this restriction from hindering your entry of the initial balances for the accounts in your books, what you do is enter 8 or 10 account numbers to the general journal screen, and then make an entry to account 9000 which is equal to the balance for the rest of the entry (which is displayed to you on the bottom of the screen). The entry for account 9000 should have the opposite sign of the entry total. If the entry total happens to be a negative number, the entry to the account 9000 should be a positive number. If the entry total is a positive, the entry to account 9000 should be a negative number. This 9000 account entry will make the entry total equal zero (0), allowing the system to accept the screen of beginning balances.

When the system asks you for a description of this screen, enter something like "Initial balances" so you can identify the transactions that initialized your books.

Small Batches

Initial balance entries illustrate something you might want to keep in mind when you're doing your normal daily entry. This is to keep batch totals fairly small, say no more than 8 or 10 entries. Keeping batches small means that they are written to the disk frequently. This means that if a problem occurs the amount of entry potentially lost is small.

In addition, keeping batches small makes it easier to track down problems. Obviously it's easier to find a mis-entered number in a short string of numbers than trying to hunt down the same problem in a long string of numbers. When running reports on your batches or reviewing your batches, smaller batches simply seem to work better.

Nothing Left in 9000

Some of you might already realize that at the end of your entire entry process the balance in the 9000 account should be zero. This is because if your books were in balance to begin with, the totals for all the plus entries to the 9000 account and all the minus entries to the 9000 account should equal each other. When the plus and minus entries equal each other, you end up with a balance of zero. If your 9000 account does not equal zero after entering the books, you have a problem.

Most likely this problem is a number mis-entered when putting in your balances, if you've taken the time to make sure that your books were in balance prior to conversion to the BPI System. You should actually double-check each batch as you enter it and before you accept the batch on the general journal. You can also print the general ledger and look at the balances by account number to make sure that the proper numbers were entered. If the proper numbers were not entered, you can make an adjustment

to the accounts involved to get the account balances in the proper quantities.

Even if the 9000 account does equal zero at the end of your entry, don't get too cocky and think that you don't have to check your entries. You could have easily posted amounts to the wrong account number; even though the pluses and minuses do balance each other out (giving you a 9000 account with a zero balance), it is possible for the individual totals by account to be wrong. Once again,⁷ adjusting entries could be made to get the total to the proper amount.

Problems During Conversion

After conversion you may find that your books don't balance. If you're new to computers or computerized accounting systems, this can give you a very queasy feeling in the stomach and more than a small sense of panic. It shouldn't—or at least it shouldn't any more than finding that adding up a row of numbers doesn't give you the expected total. The chances are good that a wrong number was entered or that a number was entered into the wrong account. A methodical approach to finding the problem usually results in a simple and easy solution.

To make adjusting entries when you don't have a zero balance in the 9000 account, you plus or minus (debit or credit) the mis-entered account and make an entry to the 9000 account with the opposite sign. If only one mistake has been made, this should zero out the 9000 account.

If you're making adjusting entries when the 9000 account is zero, then you should have two errors in your books, involving at least two different account numbers. In this situation, the offsetting entries are made to the account numbers involved, and the 9000 account would not come into play.

GIGO is an old acronym in data processing and it stands for "garbage-in, garbage-out." In other words, if you put a set of out-of-balance figures into BPI, you cannot help getting a set of out-of-balance figures. If you don't have your various accounting records in balance prior to doing the conversion to BPI, you have a situation which requires that an accounting professional help you get these figures in balance.

After your first month-end processing, you can delete the 9000 account.

Having Faith

Almost all of us have been victimized by a computer at one time or another. In fact, it's hard to exist in modern society without having a favorite horror story about how some type of computer error has almost done someone in. Usually these involve very frustrating experiences over billing, bank statements, or some other similar problem that seemed to take a large amount of effort to correct. Although it may seem like a fine point at the time that you're battling some giant bureaucracy, the fact is that most of these computer errors are actually human error. Either a programmer hasn't properly tested a program or, more likely, some improper code or data was entered.

Computers, just like anything made by man, can fail and can have problems. They can add up 2 and 2 and get 5. However, in the wide spectrum of problems laid at the feet of computers, very few are actually caused by some kind of mechanical malfunction that prevents the computer from adding or subtracting numbers and getting the

right answer. Things like disk drives, printers, or screens do fail on computers, but these don't cause the kind of problems that prevent the computer from coming up with a proper total.

As you start the initialization of your company's books, you should keep in mind that the problems you'll encounter will most likely be caused by data entry errors, and these are the first things you should look for if things don't turn out as you expect them to.

Method, Method, Method!

The value of a methodical approach to a problem is recognized in all sorts of situations, from parents trying to get their children into the habit of brushing their teeth after meals, all the way to famous surgeons who have a regular checklist on how they go about approaching an operation. The daily operation of the BPI System is exactly the same way. If you develop a methodical approach to running the system and develop good habits, then you'll avoid problems. This is especially true of the process of backing up your disk, but it also extends to the process of data entry, report printing, and the other aspects of the BPI System.

BPI has gone to a considerable amount of trouble to try to make the system as foolproof as possible. In addition, the system does an extensive amount of error checking. Despite this, the operation of any computer system is not fail-safe. More importantly, a computer system can be frustrating in its requirement for exactness in the commands you give it.

If I asked you to "print the report" or "run the report" or "produce the report," there's an excellent chance that we would be able to communicate with each other and that I would get the report I wanted. A computer usually doesn't have this kind of flexibility, so you have to be very precise in your entries, in your commands, and in the sequence of your commands.

The BPI System is not unusually difficult in this area and, in fact, it's quite good in some of its features. But the fact still stands that new computer users often get frustrated because the system requires exactness. You know what you mean or want from a system, but unless you place it in the system's terms there's very little chance that you're going to get what you want. DWIM, another old data processing acronym, stands for "do what I mean." Unfortunately, DWIM is not implemented on most computers.

Because of movies, popular fiction, and the great things that computers really can do, people often get confused over their expectations about what the computer should know and do. The facts are that the average 10-year-old has more self-motivating intelligence than any computer. Obviously, the child can't add up numbers, retrieve data, or do other things as well as a computer, but the child can reason and act on instructions which don't have the precision required by a computer. This requirement for precision simply means that you're going to be better off following a methodology as you run your BPI System.

Must You Run BPI Every Day?

The BPI System is primarily designed to be run in batches where you gather the

various data to enter, and perform the entry, posting, and reporting that you want to do. How frequently you have to enter data to the BPI System obviously depends on the volume and type of data found in your business.

If you have a large amount of daily transactions, then it's better to enter these transactions on a daily basis. If you have very few transactions per day, then BPI can be run on a much longer time frame, say every other day or even weekly. If you don't run BPI on a daily basis, the trick is to make sure you keep track of all the paperwork that forms the basis for your entry to the system.

This paperwork consists of things like bills received, check stubs, and your order records. Some things, such as the cash register recording screens of the BPI System, are designed to be run every day, so that as you close out your cash registers you can post to the various accounts and keep track of where you are. If you choose to use this feature of the General Accounting System, I suggest running BPI at the end of each day or at the beginning of each following work day, just so you can keep track of this type of information properly. Entering to these screens takes only a few minutes, thanks to BPI's custom screen design.

The other entries to the system—accounts receivable, accounts payable, and employee records—could be done every other day or weekly, again depending on the volume for your business. The idea here is to make a practical assessment of how much volume you'll be doing on the BPI System and to schedule your input to the system based on this volume.

By far the best method is to schedule a daily input to the BPI System, but if you find that you're only entering one check or one bill per session and spending more time putting the disks in and starting the computer than your actual data entry, then you should think about changing your schedule for entry to the BPI System from daily to something longer.

If you choose not to put in the data daily, I still recommend strongly that you have specific days for your data entry, say Wednesdays and Fridays. Entries should be a habit, and even if you don't make it a daily habit, you should at least set it for fixed days of the week. Even if you do entry daily, the other parts of the BPI cycle (posting and reporting) can be done weekly or even monthly, depending on your business requirements.

STARTING BPI PROCESSING

When operating the BPI System using floppy disks, you simply place the proper floppy disk in the computer along with your data disk, and turn on the power. I should mention again that you should always use the backups for your program disk in doing so. All BPI manuals have detailed instructions on how to make a backup disk for the programs involved in BPI. You should follow these instructions religiously; in fact, you might want to take the opportunity to make two sets of backups so that if something should happen to the set that you normally use to operate, you can switch to your second backup disk without having to go through the process of copying programs from your original BPI disk.

One thing you should think of is putting the original BPI disks in a safe place. If you make two sets of backups, the originals may even be placed someplace outside

your office, say at your home or in a safety deposit box. Those disks represent a valuable investment on your part and should be protected.

If you're running the BPI System from a hard disk, when you start the BPI program you usually see a selection of the various BPI System modules available to you. You are then asked to select a system module by a number, which will bring up the appropriate menu screen.

Main Menus

Once you're shown the menu of the BPI System you're dealing with, it's always a good practice to look at the title of the menu to make sure you're in the proper system. For instance, the menu in Fig. 7-2 is for data entry to the general accounting system. BPI menus for general ledger, accounts payable, and accounts receivable all look pretty much the same. The detail commands are different of course, but since the menus do look so much alike it's just good practice to spend a few seconds reading the menu title to make sure you're in the right choice.

If you want to change from different systems, one of the menu choices allows you to do this. This generally involves replacing floppies; if you're working with a hard

```

                                BPI Systems, Inc.
                        General Accounting - Version C.13
                        Menu 1 - Data Entry

1 Run Queue                      2 Erase Queue
3 Change/Exit BPI System        4 Enter Company Code and Dates
5 Change Menu                   6 Print on Screen /Printer/Disk

11 Enter Cash Disbursements     21 Print Cash Disbursements
12 Enter Cash Receipts          22 Print Cash Receipts
13 Enter Invoice Register        23 Print Invoice Register
14 Enter Merchandise Purchased  24 Print Merchandise Purchased
15 Enter Cash Register          25 Print Cash Register
16 Enter General Journal        26 Print General Journal
17 Enter Standard Entries       27 Print Mdse Purchased (Due Date)
18 Enter External Entries

Data Drive : B
Company Code: XXXXXX
Password : XXXXXX
As-of Date: MM/DD/YY
Today's Date: 10/07/85

Command Queue: Empty

Enter Command Number ==>
```

Fig. 7-2. The BPI System module name, menu number, and major purpose of the menu are found in the heading of the menu. Since BPI menus are so similar in appearance, you should always double check to make sure you have the right system and menu!

disk computer, it means returning to the screen which showed you your choices of the BPI accounting modules available to you on your hard disk.

When you enter any of the BPI menus for the first time, the first thing you'll want to do is enter the company code. This is usually one of the first menu selections on the screen. First you enter the six-position company code. For most BPI Systems, the company code does not have to be in uppercase letters; it can be in lowercase and BPI will translate them.

If there is a password associated with the company code for these books, you would next enter the password. If there is no password, you usually just press the Enter or Return key. As a security feature, the password will not appear on the screen if you do enter it.

Dates

When entering the company codes, you also have to change the "as-of" date and today's date. The as-of date appears on most reports, such as your income statement, trial balance, and balance sheet. Today's date is what will appear on the various listings, such as the vendor listing.

The format that BPI wants this date in will appear on the screen. Usually it's something like MM/DD/YY. For many BPI Systems the slashes are not really necessary, but you do have to show days and months less than ten with a leading zero. That is, June would be 06, instead of simply 6.

Multiple Companies

BPI has the capability of handling several companies, and these companies may be on the same or different data disks. This is important for accounting professionals who might be using BPI to keep books for several clients. It's also handy for business people that have more than one business.

The Queue

Two prominent commands on almost every BPI main menu are the RUN QUEUE and the ERASE QUEUE commands. BPI allows you to line up, or queue up, a variety of commands. The commands which can be queued are usually shown on the screen in some unique fashion. On the IBM or HP versions of BPI, for instance, the commands which may be queued are shown in inverse video (dark letters on a white square).

When you give the command to run the queue, then the commands are taken one at a time and processed. The queue can be a little confusing for first-time operators of the BPI System, especially when you go to submenus. Often the system simply adds the commands shown in the submenu, commands to the queue instead of actually executing them. You must return to the main menu and give the RUN QUEUE command to actually execute the commands. ("Old hands" at the computer will immediately see the analogy with indirect command files, or with running MS-DOS in batch processing mode.)

Until you get used to working with the queue, it can become a little puzzling and sometimes frustrating, especially when you want to only do one task. You have to enter

the task to the queue, and then give the RUN QUEUE command.

You soon see the value of the queue, however, when you start running multiple reports and listings. In addition, your normal daily and weekly processing can be handled in an automated fashion by entering the proper commands to the queue. The queue does have a limit on the number of commands which can be in it. On the IBM version, this limit is 14 commands.

ENTRY SCREENS

A typical entry screen in the BPI System would be the cash disbursements screen from the General Accounting System. If you try to enter this screen before you specify a company code, the BPI System will beep an error condition. The command will not be erased from the queue, but you will be asked to enter a valid company code and number. Prior to entering the screen, you are also shown whether or not the printed output will be sent to the printer or to the screen. Under normal circumstances you would want the material sent to the printer when entering data.

Sequence of Entry

The BPI System does not require you to enter transactions in a specific order. However, I like to batch transactions in specific categories and enter these categories in a set order.

Batching your transactions by categories, such as all accounts receivable transactions, makes for more efficient data entry. That way, you're not jumping from the accounts receivable to accounts payable and back to accounts receivable. This can be especially bothersome if you're running BPI on a floppy disk computer. This involves a great deal of disk-swapping and lost time as you move from one system to the next.

The order which I prefer for entering transactions are accounts receivable, accounts payable, inventory, payroll, and general ledger. There is some logic (although admittedly not a whole lot) to the order in which I like to use the system in. I like to put the receivables in before I start entering my payables, because receiving money has a greater priority to my way of thinking than paying money. Inventory and payroll falls next. Finally I do the general ledger because these are usually adjustments to specific accounts.

BPI Recommends

BPI recommends that you batch your various transactions. The total number of entries in each batch is limited, depending on what system or computer is running BPI. BPI's methodology for entry is to take the various batches and run a total (sometimes called a *hash total*) on the amounts involved. This total is run manually using a calculator, and a total for each batch is recorded. Then, when the batch is being entered to the computer, at the end of the batch you will get a batch total displayed on the screen. BPI asks you if this batch total is correct, and you're afforded an opportunity to either accept the batch total that you've just entered, review the batch, or change specific entries.

If you're good at using a manual calculator, BPI's methodology works just fine;

I've always had problems with it, however, because I'm not good at working a manual calculator and I have as high a likelihood of making a mistake when I'm adding up my hash total as when I'm entering the information to the BPI System. When the hash totals don't agree with the batch total, I often find that my mistake was adding up the hash totals, not in my entry to the system.

An Alternate Entry Method

I've developed an alternate sequence of entry to the BPI System that works for me. This alternate sequence is based on the fact that computers are very good at adding up numbers, and that the batch total presented to you on the screen is going to be accurate.

Since the purpose of cross-checking the entry procedure is to look at and make sure that the individual entries are correct, what I do is always request a review of the items in the batch starting with the first item. Then I check the amounts on the screen with the amounts on the original documents used for entry, making sure that the amounts entered to the system are correct. After reviewing all entries in the batch to make sure that the amounts were entered properly, I accept the batch.

If you're a whiz with a calculator, then I would suggest following the BPI method of entry, creating a hash total and comparing the hash total to the batch total. This means that every number entered will be keyed in twice, once to a calculator and once to the computer. With the alternate method presented, each number is keyed in once to the computer (assuming there are no errors), but you do have additional keystrokes as you review the entries.

Wire Baskets

In the high-tech world of computers, you might think that something as simple and old-fashioned as a wire basket may have no place in the modern office, but this isn't really true.

With the BPI System you enter data, then post it, then run backups of your data disk. In this type of system, a mechanical or electrical failure may damage the disk somewhere in the middle of this process, forcing you to go back to your latest backup disk and reenter the data. Unless you have clean cut-offs on what data has been entered to the system, this may be a very difficult task.

If you do have a clean cut-off of what has been entered in the system, the task is very straightforward and usually not too time consuming. For this reason I suggest you create a holding file for the data which has been entered to the BPI System, but which has not yet been backed up.

With this scheme, the original copies of all the data to be entered to the BPI System will be placed in a wire basket or a temporary holding file in a file cabinet. When the backup disk is made for the data which has been entered, then all the documents in the holding file can be distributed to the proper manual files. If a data disk should be damaged through some accident or electrical failure, then all the entries needed to bring the previous backup data disk up to current status would be found in one location.

In this way something as simple as a wire basket holding file can save you a great

deal of work, should a backup become necessary.

MANUAL FILING METHODS

After entering the information to the system, you should place the source documents into various manual files. If you have an existing filing system, there's no reason that the requirements of the BPI System shouldn't be compatible with how you are currently filing your documents. If you don't have an existing filing system for source documents for accounting data, the most common methods for filing source documents are by name, by type, and chronologically.

By-name filing involves organizing the documents by vendor or customer name. A separate file is established for each vendor or customer. Other documents are placed in this file in chronological fashion. The advantage of this type of filing system is that all the documents pertaining to a particular vendor or customer are kept in one place, where they can be easily checked if an inquiry comes in from that vendor or customer. The disadvantage of this filing method is that it involves a great number of files and a great deal of effort to actually place the documents in these files. In addition, if you don't get many inquiries from vendors or customers, most of this filing method is wasted, because you have no need to refer back to documents except on very rare occasions.

Filing documents by document type simply means that you group all your vendor invoices together and file them chronologically, then you group your invoices to customers together and file them chronologically, and so on. The advantage of this type of system is that all the documents of a particular type are together. Since usually you have only four or five main types of documents that you are filing, there's less manual effort involved in the process. It will take you longer to find documents for a particular vendor or customer if an inquiry should occur, but the length of time spent in tracking down these documents is offset by the reduction in time spent filing all the documents.

The third popular method for use of filing source documents is simply to keep the batches together by date, regardless of the type of document. These batches by date are then filed chronologically. This involves the least manual filing effort of the three systems discussed. It also involves the greatest amount of work in tracking down documents.

However, if you keep track of the various reports produced by the BPI System, this effort in tracking down source documents is somewhat reduced. You can find the various documents involved by the vendor or customer number on the reports, then from the dates of the reports you can know in what chronological batch the documents you're interested in can be found.

As you can see, the amount of work filing source documents might involve is greatly dependent on how often you have to reference the documents. If you're in a business where you frequently reference documents and need copies of the original documents to handle customer or vendor inquiries, then it might be worth the effort to use a filing system by name. If you're in a business where you don't do much inquiry or follow-up, then the other two filing systems should be considered because they will involve significantly less manual effort than dividing and filing all your source documents by customer or vendor name.

MAKE A BACKUP

After you've completed a day's entry to BPI, take a few minutes and make a backup disk of your accounting data. It's a simple procedure for most computers, and some versions of BPI even allow you to make backups without leaving the program.

A backup of your data is an important insurance policy against mechanical or electrical failure. Not making a backup is a serious mistake.

Chapter 8

Reports and Routines

The BPI cycle of operations involves entry, posting, and printing reports. Entry can be done on a daily basis, but sometimes posting is done only weekly or monthly because of the time it takes.

POSTING

The posting process uses a special menu screen, illustrated in Fig. 8-1. Posting will update your accounts and make sure that any ledgers or financial reports you run are current as of the completion of your last posting cycle. The posting process is almost automatic, and BPI takes all the entries made to the current period and sorts them by account number and journal. Most versions of the BPI System show you a status line to reflect the progression of this sort. This status line gives you a running indicator of how close the sort is to completion.

Since the posting command is almost automatic, you really don't have to sit and watch the sort indicator move (the indicator usually involves two numbers; when one number equals the other number, the sort is completed). After the sort is completed, the accounts are posted to the appropriate ledgers, and then a variety of ledgers are either printed or scrolled on the screen. Usually these reports include general ledger, accounts receivable ledger, accounts payable ledger, monthly payroll ledger, and quarter and year-to-date payroll ledger.

On these ledgers a reference is given for the source of the new entries. This is referred to as a folio reference. *Folio* is an arcane term used in accounting, probably dating back to the Renaissance, when real folios (or big sheaves of paper) were used

BPI Systems, Inc. General Accounting - Version 1.10 Menu 2 - Posting	
1 Run Queue 3 Change/Exit BPI System 5 Change Menu	2 Erase Queue 4 Enter Company Code and Dates 6 Print on Screen/ Printer
31 Post Ledgers 32 Print Income Statement 33 Print Trial Balance 34 Print Balance Sheet	41 Process End-of-Month 42 Process End-of-Quarter 43 Process End-of-Fiscal-Year 44 Process End-of-Fourth-Quarter
Data Drive : B Company Code: CORNER Password : XXXXXX	
As-Of Date: 01/01/86 Today's Date: 01/01/86	
Command Queue: Empty	
Enter Command Number ==>	

Fig. 8-1. Posting uses a special posting menu screen. Normally you would use the queue feature of BPI menus to post ledgers and print key reports such as the income statement, trial balance, or balance sheet.

for accounting purposes. Figure 8-2 shows you a general ledger report with a variety of folio references.

A two-letter abbreviation is used to indicate the folio, or source. With the IBM and other versions of BPI, the following abbreviations apply:

CD	Cash Disbursements Journal
CR	Cash Receipts Journal
GJ	General Journal
IR	Invoice Register
MP	Merchandise Purchased Journal
RJ	Cash Register Journal

As mentioned, posting can be done at any time in the month. It can be done weekly or once a day. In fact, you can post several times during the day if you have a need for updated reports. Prior to posting, your reports will not reflect all the activity you've entered. Instead, reports will show activity as of the previous posting process. To get updated reports from your system, you must do posting.

When you process the end-of-period or a month-end, you must post the current period's transaction; this posting is mandatory to bring the records up to date. In fact,

CORNER HOME IMPROVEMENT CENTER
GENERAL LEDGER

AS OF 01/01/86

PAGE 1

ACCT NO.	ACCOUNT NAME	FOLIO	BALANCE FORWARD	CURRENT MONTH	BALANCE
1010	REGISTER CASH		463.61		
	CASH REG SUMMARY	RJ		.00	
	CASH REG SUMMARY	RJ		.00	
					463.61
1021	CITY NATIONAL		10,143.01		
	CASH REG SUMMARY	RJ		.00	
	CHECKS FOR MONTH	CD		.00	
	RECEIPTS FOR MONTH	CR		.00	
	INV REG SUMMARY	IR		.00	
					10,143.01
1022	COMMERCIAL USA		252.29		252.29
1110	ACCOUNTS RECEIVABLE		5,325.11		
	INV REG SUMMARY	IR		.00	
					5,325.11
1120	PREPAID INSURANCE		56.32		56.32
1130	EMPLOYEE ADVANCES		474.50		474.50
1150	INVENTORY		24,347.61		24,347.61
1510	FURNITURE & FIXTURES		10,274.26		10,274.26
1520	MACHINERY & EQUIPMENT		47,829.86		47,829.86
1550	ACCUMULATED DEPRECIAT		3,836.48-		
	JE # 37	GJ		479.56-	
					4,316.04-
1800	DEPOSITS		7,466.58		7,466.58
1830	PREPAID INTEREST		11,826.70		11,826.70

Fig. 8-2. After posting, a general ledger can be produced, providing an audit trail of the quantities affecting your ledger for the current month, as well as their source (the folio reference). You'll note that some of the accounts on this general ledger carry a negative balance. These are simply credit balance accounts.

2010	ACCOUNTS PAYABLE		11,527.68-		
	MDSE PURCH SUMMARY	MP		.00	
					11,527.68-
2030	SALES TAX PAYABLE		1,482.90-		
	CASH REG SUMMARY	RJ		.00	
	INV REG SUMMARY	IR		.00	
					1,482.90-
2040	FICA PAYABLE		196.12-		196.12-
2050	FEDERAL INCOME TAX W/		241.17-		241.17-
2070	STATE INCOME TAX W/H		93.08-		93.08-

if you produce an income statement, trial balance, or balance sheet after making entries, but before posting them, the word "unposted" will appear on the headings of these reports, just to remind you that there are additional entries that are not shown because you have not gone through the posting process.

You can enter additional transactions to your books after posting. BPI warns you that you're doing this after posting (just so you don't do it in error), and allows you to override the warning and continue entry. You should note that the balance, trial balance, and income reports will not show the updated quantities unless you post again after entry.

PROCESSING CYCLES

Weekly Processing

Unless you have a need for accounting reports on a daily basis, I'd suggest posting on a weekly or monthly cycle. For most businesses, a weekly cycle for posting is a good one because it can allow you to produce up to date reports that are no more than 5 days behind the actual entry you've made. If you've been used to manual systems or most timesharing systems, having your books up-to-date on a weekly basis is going to seem a real luxury—although after a while many businesses get blasé about this and start posting on a daily basis because they want up-to-the-minute books when they print a report to the screen or to a printer.

As part of the weekly processing, I would suggest also producing the cash disbursements and cash receipts reports, as well as the merchandise purchased by due date. I think that a weekly review of these reports gives you a better feel for how your business is going. In fact, you may also want to produce an income statement after the weekly posting, because this income statement will reflect the totals for the month that you're in, to give you a weekly "report card" on how your business is doing.

Monthly Processing

Most businesses are on a monthly accounting cycle, and the month-end processing done in the accounting system is an important part of that cycle. It gives a chance to

assure that everything is brought up to date, that proper reports are run, and that proper backups are made.

Aside from the time taken to run reports at month-end, the month-end closing process does not have to be extensive with the BPI System. To perform month-end processing, you should establish a methodology to make sure all steps are taken properly.

The first thing you should do is establish a month-end cutoff for your business. This is usually the last calendar day of every month, but it can vary depending on the requirements of your operations. This month-end cutoff tells you which bills, checks, and invoices will be part of one month's activity, and which will be part of another month's activity. Some states require property taxes to be calculated based on a particular monthly period, so this cutoff date can have an effect here as well.

For instance, if a bill arrives on the 31st of the month and it is a significantly large one, then entering the bill or carrying it over to the 1st of the next month can have an effect on how your books look. Depending on the advice of your accounting professional, you may find that this difference may help you or hurt you.

After establishing a clean cutoff, you should make sure that all the entries you want to make to the current month's books are completed, and that you start posting those entries. After posting, you want to print a complete set of ledgers and a trial balance to assure yourself that your books are in balance. Figure 8-3 shows what a trial balance report looks like.

If there are no problems to track down, then the next step in the month-end process is to make a backup data disk. You do this by transferring all the data records on a disk to another disk. In this backup scheme, your original data disk is sometimes called the "father" and the new data disk that you're making is sometimes called the "son." (I know this is sexist nomenclature; if you prefer, you can call them "mother" and "daughter" data disks).

Next, you should make a file folder for the current month activities, and you should put a copy of all the ledgers and reports that you've produced thus far in this file folder. You should then take your original data disk, the father or mother disk, and put that away in the file folder with the reports or in a separate location. From this point on you will use the copy of your original disk for all the closing and processing. This copy will also be used as your new data disk into the next month.

The reason for this is to assure yourself that you have an accurate copy of your original data disk by using the copy for your closing procedures. In addition, your original data disk is now "open" for the current month. This means that if some problem occurs during the month-end closing process, or if you have to make an adjustment for some reason to the current month's activities, you will always have a data disk which will let the BPI System think that it's still in the current month.

If you are using a hard or fixed disk computer, you naturally can't swap fixed disks at every month-end closing, but you can make a backup of the information in your files to a floppy diskette and put this floppy disk in a safe place.

After this monthly backup activity, you can then process the month-end closing for the BPI System. If you are using other BPI Systems, such as the Accounts Payable or Accounts Receivable Systems, you would do a month-end close for these systems, and transfer the information from the system to the General Accounting System. (Don't forget to make month-end reports and backups for these systems, too.) The actual

CORNER HOME IMPROVEMENT CENTER
TRIAL BALANCE
JANUARY 1, 1986

PAGE 1

CURRENT ASSETS

1010 REGISTER CASH	463.61
1020 CASH ON DEPOSIT	.00
1021 CITY NATIONAL	10,143.01
1022 COMMERCIAL USA	252.29
1110 ACCOUNTS RECEIVABLE	5,325.11
1120 PREPAID INSURANCE	56.32
1130 EMPLOYEE ADVANCES	474.50
1140 RETAINAGE ON CONTRACTS	.00
1150 INVENTORY	24,347.61
1160 CONSTRUCTION IN PROGRESS	.00
1180 LABOR CONTROL	.00

FIXED ASSETS

1510 FURNITURE & FIXTURES	10,274.26
1520 MACHINERY & EQUIPMENT	47,829.86
1550 ACCUMULATED DEPRECIATION	4,316.04-

OTHER ASSETS

1800 DEPOSITS	7,466.58
1830 PREPAID INTEREST	11,826.70

CURRENT LIABILITIES

2005 DEPOSITS ON CONSTRUCTION	.00
2010 ACCOUNTS PAYABLE	11,527.68-
2030 SALES TAX PAYABLE	1,482.90-
2040 FICA PAYABLE	196.12-
2050 FEDERAL INCOME TAX W/H	241.17-
2060 EARNED INCOME CREDIT	.00
2070 STATE INCOME TAX W/H	93.08-
2080 NEW YORK CITY TAX W/H	22.93-

LONG TERM LIABILITIES

2620 NOTES PAYABLE-EQUIP	67,312.01-
--------------------------	------------

CAPITAL

3010 CAPITAL STOCK	24,500.00-
3050 RETAINED EARNINGS	8,767.92-

INCOME

4011 SALES	.00
4012 SALES-LUMBER	106,132.45-

Fig. 8-3. A trail balance is run prior to monthly closing to make sure that your books are in order. The system would automatically note if the books were out of balance.

4013 SALES-GENERAL	63,272.32-
4020 CONSTRUCTION INCOME	13,106.81-
COST OF SALES	
5011 COST OF SALES	.00
5012 COST OF SALES-LUMBER	59,283.82
5013 COST OF SALES-GENERAL	44,483.65
5020 COST OF CONSTRUCTION	9,500.87
EXPENSES	
6011 SALARIES & COMMISSIONS	.00
6012 SALARIES-LUMBER	6,971.55

month-end command is a pretty unspectacular process on the system, because BPI does the work automatically.

Immediately after the month-end closing is done, I like to run a balance sheet and income statement; after reviewing these reports, I put them in the monthly folder.

At the end of a year you're going to end up with 12 backup data disks, one for each month-end close, but you certainly shouldn't begrudge this. The reason is that if you don't retain the data disk just before month-end close, then the only records you have of your accounting for that month-end close are found in the hard copy of the reports that you've produced. This is perfectly acceptable, but if you get involved with something like an IRS audit, it's nice to be able to produce additional copies of the various reports on your computer printer. In addition, sometimes your archival copies of various month-end reports are marked on, spilled on, or destroyed; if you don't have the backup data disk to reproduce these reports, you may regret that you've tried to be a little stingy and didn't retain your monthly closing diskettes.

Below is a synopsis for my recommendations for end-of-month processing in the BPI System.

1. Choose a cutoff date for closing your monthly activities and enter all appropriate data for the month.
2. Get a hard copy of all the journals printed and file these copies in a manual file for the month.
3. Post, using the post command.
4. Print the trial balance, income statement, and balance sheet. If you find any mistakes, make any necessary corrections.
5. Transfer any data from other BPI Accounting System modules and make sure that the data has been transferred successfully. Correct any errors.
6. Make a backup copy of your disks (a "son" or "daughter" copy). Put the *original* copy away some place, so that you have a monthly archive copy.
7. Execute the process end-of-month command, using the *backup* diskette.
8. Produce an updated balance sheet and income statement.

Yearly Processing

At the end of your fiscal year, you should process the end-of-fiscal year commands.

This resets all the year-to-date amounts, so that your year-to-date figures will be accurate as you commence your next business year. At the end of the calendar year you should run the end-of-fourth-quarter to reset all employee payroll records.

BACKUPS

If you do have to use a backup data disk because of some mechanical or electrical failure, it's very important that you first make a copy of the backup disk and then use the copy to restore the data from your holding file. This is because a second accident could occur while you are restoring the backup copy of your data disk. If you used the original of your backup data disk and a second accident should occur, you would then find yourself in the very uncomfortable position of having no backups for your data disk, or perhaps having to use the backup at the close of the previous month-end. This could involve an enormous amount of data entry, hunting down the data in various files.

Just as you should always copy the program disk and never use your original, the same rule applies to copies of your backup data disk. Never use the original of the backup data disk. Always make a copy of the backup data disk and use the copy to restore your files to the proper condition.

Remember, magnetic disks, like magnetic recording tape, can be recorded over. If you are making backups on a daily basis, you actually only need a few disks for this backup purpose because you can record over these disks as newer backups are created. I know this is lecture number 234 on the importance of backup disks in this book (and the book is only about half done!), but I've learned through bitter experience that people just don't take all the warnings about backup data disks seriously. When the need for a backup occurs, one is not available and a great deal of work is involved in restoring the accounting records to an accurate condition. Do yourself a favor: Heed all these warnings about backups.

THE BALANCE SHEET

A balance sheet is also known as a *statement of financial position*, which is a pretty good description of what you'll find on a balance sheet. The balance sheet uses what is often called the *basic accounting equation*, that is:

$$\text{Assets} = \text{Liabilities} + \text{Owner's Equity or Capital}$$

If you recall our discussion on the chart of accounts, as well as the account types that you entered to the chart of accounts, you might note that the accounts found on the balance sheet are the "top" of your chart of accounts. These are current assets, fixed assets, other assets, current liabilities, long term liabilities, and capital.

These are account numbers ranging from 1000 to 3999 (on the IBM and other versions of BPI); the asset accounts subheadings, the liability accounts subheadings, and the capital account subheading look suspiciously like the components of the basic accounting equation listed above. The layout of the balance sheet, in fact, follows this accounting equation.

The top part of the balance sheet shows the assets and a subtotal for the assets.

The bottom part of the report shows the liabilities and the capital accounts, and a subtotal for the liabilities and the capital accounts. The total of the top half of the report (the assets) and the totals for the bottom half of the report (the liabilities and capital) should equal each other. In fact, that's where they get the name "balance sheet."

One thing you want to pay attention to on the balance sheet is the retained earnings account, or owner's equity account. This shows the amount of profit or loss that the company has made since its inception. The retained earnings number can actually be a negative number or debit, which means that the company has lost money.

Another thing to note is the relative ratio of current assets to fixed assets. Current assets are things like inventory, which are readily convertible to cash; your fixed assets are a little bit harder to liquidate. A company can be asset-rich, but if they're all tied up in things which are not easily convertible to cash, it may find itself with a cash problem at some time.

Within the current assets bracket you might also want to look at the amount of cash and the amount of accounts receivable. If the cash amounts are extremely small and the accounts receivable is extremely large, you may be facing a collection problem with your company.

In the liabilities section, you want to look at the difference between current liabilities and long-term liabilities. Long-term liabilities are usually a little bit easier to pay, but your company is committed for a much longer period.

One thing you have to remember about the balance sheet is that it is a single snapshot at one point in time. It shows what you have and what you owe, but it really doesn't give an indication of whether the company is profitable or not. To do this you need the *profit and loss*, or *income statement* (two names for the same thing), which is a companion to the balance sheet.

Balance sheets are almost always required by banks if you want to get loans or have other financial dealings for a company. For some types of companies, balance sheets are also required with the submission of tax papers. The type of balance sheet produced by BPI should be acceptable for your own use and control of the company, as well as for most financial institutions.

Extremely large companies often produce balance sheets which are replete with footnotes, special categories, and exceptions. This is usually an effort to clarify specific entries on a company's balance sheet and to make the balance sheet as accurate a representation as possible (although sometimes investors in these companies would argue that they're designed to do the exact opposite).

If your balance sheet has an unusual listing in it, there's no reason why you can't add footnotes to the BPI balance sheet. The BPI System does not give you a provision for doing this automatically, but a trusty typewriter can serve the purpose for adding this type of footnote. These kinds of footnotes may be helpful to you when dealing with banks and other financial institutions, because bankers are usually pros at reading a balance sheet, footnotes and all.

THE INCOME STATEMENT

The income and loss statement is also known as the profit and loss statement. Unlike the balance sheet, which is a snapshot of the company's financial position at a given point in time, the income statement is sort of a running total of the amount of money

made and spent by a company over a period of time. It shows the results of operations.

With the BPI System, this period of time is the current period (usually a month) and fiscal year-to-date. The income statement produced by BPI can be a statement by department or location, or a consolidated income statement. Once again, you should refer to Chapter 3 on account numbering schemes if you've forgotten how the account numbers can be used to control this.

The income statement makes use of the accounts on the "bottom" of the chart of accounts. These are income, cost of sales, expenses, other income, and other expenses, as well as the income transfer account (special BPI account number 9999).

The income accounts should show you the gross revenues for your company from its normal operations. For most companies, this involves sales and other types of income. The cost of sales covers the direct expenses that can be charged against the revenue. By consolidating the cost of sales for the direct charges against this revenue, the BPI System can calculate a gross profit for you on your income statement.

The various expenses found for your company are also listed on the income statement, as well as other income and other expense categories. The result of taking your gross profit and subtracting expenses, adding other income and subtracting other expenses, is the net income or loss for the company.

One thing you might want to note is that the year-to-date net income or loss figure for your company will equal the automatically maintained total in the income transfer account (account number 9999). This net income line on the income statement is the fabled "bottom line" often referred to in business. If this is a positive number, your company is making money. If this is a negative number, then you might have a problem.

You can have a negative number on your income statement for a variety of reasons. Let's say you've increased advertising expenditures, and the sales generated from this increased advertising have not yet been realized. In this situation, if your company had a strong balance sheet and plenty of cash on hand, then the negative income on a particular income statement would not be unusual.

Obviously, at the end of the year you want your year-to-date income to be positive, but companies often show a loss in a particular month in spite of the fact that they may be fundamentally sound and profit-making organizations.

The BPI Accounting income statement not only gives you the current and year-to-date amounts on the income statement, but also the percentage of income that each of these amounts equals by category. These percentages can be quite useful. For instance, the income percentage shows the profit margin that your company is making on sales after all expenses have been taken out, but before taxes. In addition, the distribution of both income and expenses by percentage can be very useful in helping you to pick out an area where excessive expenses are occurring or where insufficient profit is being generated. (The raw numbers involved will help you do this too, but often the percentages are easier to work with.)

Like the balance sheet, most financial institutions will want to see an income statement if you do business with them. One thing you should note is that both the balance sheet and income statement can look quite different for the same company, depending on whether or not that company is using the cash method or the accrual method of accounting. Most companies do use the accrual method, because it is often felt that this gives a more accurate picture of the current financial status of a company, and

a better matching of revenues and expenses.

TRIAL BALANCE

The trial balance is a detailed listing of the balances in each general ledger account number in your chart of accounts. On the trial balance, credits are shown with a negative sign after the amount in the account. Debits are listed on the account trial balance without any special notation. The totals for all the positive accounts and negative accounts on your trial balance will equal zero with BPI.

BPI will always give you an error message if it could not successfully transfer the balances from other systems to the General Accounting System. Sometimes these errors occur because the account numbers found in the other system do not match the account numbers in your General Accounting System. What you should do in this case is add the appropriate account number and then use a general journal entry to correct the error.

Because BPI has so many specialized screens, entry errors are minimized compared to other accounting systems. It is impossible that your books will be out of balance. The fact that your books remain in balance, however, is not proof against entering a bad number into your books. In other words, your books can be in balance but inaccurate. This is why the daily routines you use to check your accounting entries have as much importance to the system as monthly routines or key reports like the trial balance.

REPORTS

Cash Register

If you use a cash register in your business, the cash register report is very useful for showing your daily balances on the register. This register report should normally be kept for tax records.

Many businesses use cash registers, and if you have a choice you should try to get a cash register that will give you automatic subtotals on things like sales tax and sales balances. Of course, you will also have to count the amount of money in the cash drawer in order to get the appropriate figures for your register closing and opening cash amounts.

General Ledger

The general ledger report is very handy for tracking changes to your accounts. It gives you a balance forward amount, the current month's activities, and the new balances by account number. For the current month's activities, you get a detailed listing of the transactions against that particular account number, as well as an indicator of the source for that listing.

Cash Flow

We spend a great deal of time talking about cash flow when we discuss the Accounts Payable and the Accounts Receivable system, but the General Accounting system also has some tools that can help you manage the cash in your business.

CORNER HOME IMPROVEMENT CENTER
QTD AND YTD PAYROLL LEDGER

AS OF 01/01/86

PAGE 1

EMP NO.	EMPLOYEE NAME	G/L ACCT	CURRENT	QUARTER TO-DATE	YEAR TO-DATE
101	ROBINS, BLAKE				
	SALARIES-GENERAL	6013	.00	1,044.00	2,138.60
	FICA PAYABLE	2040	.00	69.95-	143.29-
	FEDERAL INCOME TAX W/	2050	.00	58.50-	124.69-
	STATE INCOME TAX W/H	2070	.00	16.38-	34.91-
	NEW YORK CITY TAX W/H	2080	.00	4.91-	10.05-
	NET PAY		.00	894.26	1,825.66
102	RYDEN, JACKIE				
	SALARIES-LUMBER	6012	.00	2,400.00	5,000.00
	FICA PAYABLE	2040	.00	160.80-	335.00-
	FEDERAL INCOME TAX W/	2050	.00	154.96-	312.26-
	STATE INCOME TAX W/H	2070	.00	43.41-	87.45-
	NEW YORK CITY TAX W/H	2080	.00	29.76-	62.00-
	NET PAY		.00	2,011.07	4,203.29
103	REID, THOMAS				
	SALARIES-GENERAL	6013	.00	2,400.00	5,000.00
	FICA PAYABLE	2040	.00	160.80-	335.00-
	FEDERAL INCOME TAX W/	2050	.00	196.56-	353.86-
	STATE INCOME TAX W/H	2070	.00	55.06-	99.10-
	NET PAY		.00	1,987.58	4,212.04
104	LANCASTER, MARY				
	SALARIES-LUMBER	6012	.00	.00	69.75
	FICA PAYABLE	2040	.00	.00	4.67-
	FEDERAL INCOME TAX W/	2050	.00	.00	4.22-
	STATE INCOME TAX W/H	2070	.00	.00	1.10-
	NEW YORK CITY TAX W/H	2080	.00	.00	.86-
	NET PAY		.00	.00	58.90
105	MONTGOMERY, JAMES				
	SALARIES-GENERAL	6013	.00	.00	121.35
	FICA PAYABLE	2040	.00	.00	8.13-
	FEDERAL INCOME TAX W/	2050	.00	.00	7.34-
	STATE INCOME TAX W/H	2070	.00	.00	1.91-
	NEW YORK CITY TAX W/H	2080	.00	.00	1.21-
	NET PAY		.00	.00	102.76

Fig. 8-4. The standard general account system reports on personnel provide most of the information needed for filling out state and federal employee tax forms.

106	STANLEY, JAMES F.				
	CONSTRUCTION COMMISSI	6020	.00	881.20	2,195.15
	FICA PAYABLE	2040	.00	59.04-	147.08-
	FEDERAL INCOME TAX W/	2050	.00	53.46-	127.32-
	STATE INCOME TAX W/H	2070	.00	20.71-	41.39-
	NEW YORK CITY TAX W/H	2080	.00	5.82-	9.54-
	NET PAY		.00	742.17	1,869.82
107	HAGEN, WILLIAM				
	SALARIES-LUMBER	6012	.00	1,213.15	1,817.70
	FICA PAYABLE	2040	.00	81.28-	121.79-

Cash flow is simply the amount of money coming into your business and out of your business, as well as the timing involved in this flow of cash. If cash flow is not managed properly, sometimes even basically profitable businesses have been known to close down, simply because they did not have enough cash to meet their obligations.

The BPI System provides you with reports to document cash in and out of the business. This includes cash disbursements and cash receipts reports which record the amount of cash coming into your business and out of your business in detail. You also receive an accounts receivable ledger and accounts payable ledger which helps you track the credit transactions involved with your business.

For many businesses, perhaps the most useful report produced in the General Accounting System for the management of cash flow is of merchandise purchased by due date. This shows the accounts payable bills for merchandise that you have purchased from vendors, sorted by the date that this bill is due. This helps you maintain a track of how much money you'll need to pay your obligations to vendors, and when you'll need this money.

You should remember that this report on merchandise purchased is not a complete listing of all the bills that you might have due. You will probably have regular bills such as rent and utilities, which will not be listed on this report, as well as payroll and other ongoing obligations. The merchandise purchased by due date report, however, is a way of keeping track of the bills owed to the vendors, and for many businesses this accounts for the great bulk of cash requirements needed by the business.

Employee Reports

BPI produces a monthly payroll ledger which helps you track the beginning balances, the current month's activity, and the ending balance by employee.

For filling out the various reports necessary for payroll, the quarter-to-date and year-to-date payroll ledger is also an extremely useful report. This information gives you the current payroll balances by account number and employee. Figure 8-4 illustrates this report. The current period balances are useful for making deposits to various tax accounts. The quarter-to-date balances are useful for filling out the various reports required for things like withholding tax. And the year-to-date balances are useful at the end of the year for creating W-2s and other necessary tax forms.

SUMMARY

The BPI General Accounting System provides you with a variety of reports to help you manage your business better. It also automates most of the processes involved with month-end closing of your accounting records. You should always follow a specific methodology in this month-end closing to assure that proper backup copies of both reports and disks are maintained.

Chapter 9

System Security

Most people deal with others in an honest and open-handed manner, and they receive honesty in return. It is an unfortunate fact of life, however, that not everyone is honest. Sadly, this is something that you're going to have to keep in mind when you operate the BPI Accounting System.

FRAUD

The popular conception of computer fraud involves some thirteen-year-old genius hunched over a keyboard and accessing computers around the world via the telephone. In study after study of actual computer fraud, the fact is that the great majority of criminals (70 percent to 90 percent, depending on the study) are people who are authorized to access the computer. These can be coworkers and employees; sometime they're friends or partners. The chance of some outsider getting into your accounting system to commit fraud is actually very slim.

The mere fact that you're operating the BPI System does not open up your business to greater risk of theft or fraud. In fact, because of BPI's audit trails and operational characteristics, the reports produced on the BPI System can actually bring irregularities to your attention much more quickly than if you're operating under a manual system.

The Outsider

Since the popular misconception of what computer fraud involves is the intrusion of some outsider, this is probably the first kind of security problem we should discuss.

If your computer is not connected to the phone system in any way, there is no possibility for some outside party to use the telephone to access your computer, to alter your accounting records, or to cause malicious mischief. Even if your computer is connected to the phone system through a *modem* (a device to allow computer communications over the telephone line), the current state of communications software and the way the BPI System operates makes telephone access to your accounting records so remote that this possibility is not something to worry about.

Instead of access by telephone, there's a higher chance of someone coming into your office and physically using your computer or causing damage. Sometimes this is just pure high-tech vandalism, the modern equivalent of throwing a brick through a window. The only proper defense against this (besides the usual thing like burglar alarms and remembering to lock your front door) is to be religious about your backup copies and to make sure that your backup copies are kept under lock and key in some safe place. In this way, if a disk does get damaged, either intentionally or by accident, you have protection for your accounting records. You may have to reconstruct some part of the records, but at least the amount of work involved in reproducing your books and bringing them to current status will be limited.

Password

To prevent unauthorized use of the BPI System by outsiders, you should assign a password to your accounting system. In the examples provided by BPI's test files for user training and illustration, the passwords chosen are usually pretty simple.

For instance, with version 1.1 for the IBM, BPI provides a series of test files for a company called Corner. The password for Corner is "renroc," which is simply "corner" spelled backwards. If you're worried about fraud from outside sources, give yourself a fighting chance by picking a password that is a little bit more obscure than the company code spelled backwards (or, for that matter, the company code spelled forwards).

Internal Fraud

The chances of someone outside your company breaking in and using the BPI System to defraud you are slim. Remember, it's going to take someone that not only has physical access to your computer and your books, but who also knows how to operate the BPI System. Statistically and practically, there's more chance that if any fraud does occur, it will be caused by a coworker or employee. Obviously, nobody hires a person if he thinks they're dishonest, but businesses having money stolen by people who otherwise appear honest is a daily occurrence.

This should not be a cause for paranoia. You already trust your employees and coworkers in a variety of ways, and the introduction of a computerized accounting system should not be the catalyst for draconian security procedures in your company.

On the other hand, it's just plain stupid not to take prudent steps to make sure that you and the business are protected from fraud. After all, you probably have insurance on your business, even though you hope that you'll never have to use it. It's the same with computer security measures. You hope that there will never be an occasion to put these measures to the test, but you'd be foolish not to have them.

When I started developing this chapter of the book, I was torn about how much to put in and how much to leave out. There was a danger that this chapter could become an instruction manual on how to commit computer fraud, instead of a chapter on how to detect and avoid it.

Most cases of fraud are really very simple in their mechanics. Things can be added to confuse the situation or provide a murky trail for tracking down what has actually occurred, but the things that should be looked for are really not too numerous and not too complicated. For this reason I've eliminated a discussion of the more esoteric ways to commit fraud, and concentrated on some basic preventive measures.

A PRIMER ON FRAUD

Do It Yourself

One way to stop fraud is to simply do all the entry, report printing, and check printing for BPI yourself. The BPI System does not make this extremely burdensome. For many small businesses or professionals, doing the books yourself is a viable alternative. In this way your program and data disks can be kept locked up (in a separate location from your backup disk), and only you will have training in the operation of the system.

Often the size of the business does not allow you to operate the accounting system by yourself. Other people are often involved with the entry, posting and printing of various reports, checks, and data. Although entering and writing to the system entirely by yourself is one of the surest ways to prevent fraud, is not often the most practical way to operate the system.

Obviously, the most important thing you can do is to hire people whom you trust, but even if this prime rule is followed, people are often tempted into fraud, and often by surprisingly small sums of money. If you're not operating the system yourself, there are some things that you should look for.

Phony Bills

One of the most common mechanisms for fraud with accounting systems (both manual and computerized) is the submission of phony bills. This can be done in a variety of ways.

One is the creation of a phony company, which perhaps operates out of a post office box or an employee's home address. This phony company submits bills for services or goods which are never received by your company, and the bill is paid in a normal way.

Under these circumstances, one of the best things to do is simply look at the BPI vendor list and the cash disbursement journal (Fig. 9-1). See if there are any names which don't ring a bell. For these vendors, see what the purchases were and check that merchandise or services were actually received. If things don't look kosher, try calling the vendor just to check that the vendor exists.

A variation of this scheme involves processing phony bills from a legitimate vendor. You should occasionally audit the bills from vendors on a random sampling basis. Take the cash disbursement journal and pick a few vendor invoices at random. Check your manual files for these bills to make sure a legitimate bill exists for these entries.

Once again, don't be afraid to call the vendor if something looks funny. In this case, you won't be calling to check on the existence of a vendor, but to confirm that a bill

If your computer is not connected to the phone system in any way, there is no possibility for some outside party to use the telephone to access your computer, to alter your accounting records, or to cause malicious mischief. Even if your computer is connected to the phone system through a *modem* (a is a device to allow computer communications over the telephone line), the current state of communications software and the way the BPI System operates makes telephone access to your accounting records so remote that this possibility is not something to worry about.

Instead of access by telephone, there's a higher chance of someone coming into your office and physically using your computer or causing damage. Sometimes this is just pure high-tech vandalism, the modern equivalent of throwing a brick through a window. The only proper defense against this (besides the usual thing like burglar alarms and remembering to lock your front door) is to be religious about your backup copies and to make sure that your backup copies are kept under lock and key in some safe place. In this way, if a disk does get damaged, either intentionally or by accident, you have protection for your accounting records. You may have to reconstruct some part of the records, but at least the amount of work involved in reproducing your books and bringing them to current status will be limited.

Password

To prevent unauthorized use of the BPI System by outsiders, you should assign a password to your accounting system. In the examples provided by BPI's test files for user training and illustration, the passwords chosen are usually pretty simple.

For instance, with version 1.1 for the IBM, BPI provides a series of test files for a company called Corner. The password for Corner is "renroc," which is simply "corner" spelled backwards. If you're worried about fraud from outside sources, give yourself a fighting chance by picking a password that is a little bit more obscure than the company code spelled backwards (or, for that matter, the company code spelled forwards).

Internal Fraud

The chances of someone outside your company breaking in and using the BPI System to defraud you are slim. Remember, it's going to take someone that not only has physical access to your computer and your books, but who also knows how to operate the BPI System. Statistically and practically, there's more chance that if any fraud does occur, it will be caused by a coworker or employee. Obviously, nobody hires a person if he thinks they're dishonest, but businesses having money stolen by people who otherwise appear honest is a daily occurrence.

This should not be a cause for paranoia. You already trust your employees and coworkers in a variety of ways, and the introduction of a computerized accounting system should not be the catalyst for draconian security procedures in your company.

On the other hand, it's just plain stupid not to take prudent steps to make sure that you and the business are protected from fraud. After all, you probably have insurance on your business, even though you hope that you'll never have to use it. It's the same with computer security measures. You hope that there will never be an occasion to put these measures to the test, but you'd be foolish not to have them.

When I started developing this chapter of the book, I was torn about how much to put in and how much to leave out. There was a danger that this chapter could become an instruction manual on how to commit computer fraud, instead of a chapter on how to detect and avoid it.

Most cases of fraud are really very simple in their mechanics. Things can be added to confuse the situation or provide a murky trail for tracking down what has actually occurred, but the things that should be looked for are really not too numerous and not too complicated. For this reason I've eliminated a discussion of the more esoteric ways to commit fraud, and concentrated on some basic preventive measures.

A PRIMER ON FRAUD

Do It Yourself

One way to stop fraud is to simply do all the entry, report printing, and check printing for BPI yourself. The BPI System does not make this extremely burdensome. For many small businesses or professionals, doing the books yourself is a viable alternative. In this way your program and data disks can be kept locked up (in a separate location from your backup disk), and only you will have training in the operation of the system.

Often the size of the business does not allow you to operate the accounting system by yourself. Other people are often involved with the entry, posting and printing of various reports, checks, and data. Although entering and writing to the system entirely by yourself is one of the surest ways to prevent fraud, is not often the most practical way to operate the system.

Obviously, the most important thing you can do is to hire people whom you trust, but even if this prime rule is followed, people are often tempted into fraud, and often by surprisingly small sums of money. If you're not operating the system yourself, there are some things that you should look for.

Phony Bills

One of the most common mechanisms for fraud with accounting systems (both manual and computerized) is the submission of phony bills. This can be done in a variety of ways.

One is the creation of a phony company, which perhaps operates out of a post office box or an employee's home address. This phony company submits bills for services or goods which are never received by your company, and the bill is paid in a normal way.

Under these circumstances, one of the best things to do is simply look at the BPI vendor list and the cash disbursement journal (Fig. 9-1). See if there are any names which don't ring a bell. For these vendors, see what the purchases were and check that merchandise or services were actually received. If things don't look kosher, try calling the vendor just to check that the vendor exists.

A variation of this scheme involves processing phony bills from a legitimate vendor. You should occasionally audit the bills from vendors on a random sampling basis. Take the cash disbursement journal and pick a few vendor invoices at random. Check your manual files for these bills to make sure a legitimate bill exists for these entries.

Once again, don't be afraid to call the vendor if something looks funny. In this case, you won't be calling to check on the existence of a vendor, but to confirm that a bill

CORNER HOME IMPROVEMENT CENTER
CASH DISBURSEMENTS

AS OF 06/30/85

PAGE 1

DATE	PAYEE	CHECK NO.	G/L ACCT	SUB ACCT	DETAIL	NET AMT
06/01/85	SAMSON ELECTRIC SUPPLY	530	2010	V2		178.38
06/03/85	CITY NATIONAL	531	2620		1,074.69	
			1830		241.30-	
			6649		241.30	
						1,074.69
06/03/85	BLAIR, HAMILTON, & SMI	532	1520			350.00
06/05/85	ROBINS, BLAKE	533	6013	E101	87.00	
			2040	E101	5.83-	
			2050	E101	4.00-	
			2070	E101	1.12-	
			2080	E101	.41-	
						75.64
06/05/85	VOID	534				
06/06/85	SANI ROOTER	535	6609			45.00
06/06/85	PETTY CASH	536	6719		10.20	
			6609		5.81	
			6739		15.00	
			6669		13.29	
			5013		11.50	
			6709		6.22	
			6799		15.50	
			6589		20.00	
						97.52
	BATCH TOTAL					1,821.23
	TOTAL					1,821.23

Fig. 9-1. The cash disbursements journal is an excellent document to use when auditing your system. The payee names can be spot-checked; names can be picked at random so they can be contacted and the legitimacy and amounts of payments given to these vendors can be confirmed.

in your files was legitimately sent. A neutral way to do this is simply to ask if you could confirm the total on a vendor's bill. In this way you can get confirmation of the bill without making premature (and hopefully baseless) accusations of fraud.

A third variation involves collusion between someone inside the company and a

legitimate outside vendor. This is one of the hardest types of fraud to catch because the vendor could be supplying legitimate services or merchandise to the company with only an occasional phony bill slipped in. The person inside your company approves or processes these phony bills and the two parties share in the proceeds. This type of fraud is much less common than simply submitting phony bills, and the reason is that it takes two dishonest people to commit this type of crime. The collusion between these people is harder to set up; therefore, this type of fraud is harder to commit.

As with other phony bills, one thing you can do to catch this type of fraud is to do a spot audit on the bills being paid by the company. This is probably something you should do in any case, simply to validate the fact that bills are being processed properly through your accounting system—sometimes legitimate human error can occur which is not motivated by fraud. To do this, simply take your check register or cash disbursements journal and pick out five or ten checks at random. Go back to the original invoice for these checks, and assure yourself that the merchandise or services the check is for were given to your company.

As I said, this type of audit is probably something you should be doing anyway, even if you're entering the books yourself. It is a simple audit procedure that probably should take no more than a half hour per month. Still, it's a half hour that assures you that things are operating in the company the way they should. Obviously, this is not 100-percent foolproof audit, because you are picking out checks at random, but it is a nice spot audit; with the check register, cash disbursements journal and other audit trails provided by the BPI System, you have a convenient way of tracking down these transactions.

Balance Your Checkbook

Another thing you should do as a matter of course is to make sure that your checkbook balances every month, doing this by checking the original statement from the bank against your accounting record. For example, if there are any unrecorded checks on the check register (generally handwritten checks not recorded in the system), then your bank statement balance and the balance in your books would not agree. This monthly operation will not take very much time and it is a companion action to the spot-audit of transactions in the check register and cash disbursement journal.

These two checks are designed to be done in tandem. The spot-audit of the check register and cash disbursement journal gives you a chance to discover if fictitious checks are being written. The balancing of the checkbook assures that all checks being written are being entered properly to the BPI System.

Controlled Checks

Another simple thing to be done, and one you should insist upon, is to physically control the checks for your company, and have a strict authorization on who may write checks. This is especially true for checks designed to be produced on a computer printer. For some reason, people tend to treat computer checks differently than they would checks in a checkbook. All checks should be kept in a safe place, preferably under lock and key. The BPI System will print check numbers for you on computer checks. This is a very convenient way of operating, and your checks will have a continuous sequence

of check numbers, even if you use up one or two check forms in order to adjust the computer printer.

The convenience of the BPI System printing the check numbers should be weighed against the extra control that preprinted check numbers given you. With preprinted check numbers, you can be assured that every check is accounted for, including checks which have been voided or used for printer alignment. If checks are used for alignment, or if they are spoiled in the printing process, they should be retained and marked void. They should not be thrown away in the trash.

The monthly balancing of the checking account to your BPI books should show if any extra checks are being written; this check is after the fact, however, and considerable sums of money could be gone before you realize it. Sloppy handling of checks could let both people inside and outside the company have a free hand with your company's funds. I know advice about keeping track of blank checks sounds pretty elementary, but there have been actual cases where very large corporations have not followed this simple step (much to their embarrassment and dismay).

STRIKING A BALANCE

A balance must be struck between how much control and auditing is done on a system and on what your potential is for loss on the system. I think the natural tendency to trust people is probably a good one, and one that should be followed. On the other hand, the practices and audits outlined above are simply commonsense measures which not only help you find problems caused by potential fraud, but also problems caused by sloppy operations or procedural problems.

Since the precautions recommended don't take that long to do, I would strongly recommend that you follow the review of vendor listings, the spot-audit of check registers, the balancing of checkbooks to your accounting books, and the control of all checks.

Chapter 10

Other Software

There's a great variety of other software useful for business accounting and financial management. Some of this software is written by BPI and designed to work specifically with the General Accounting package. Four of these BPI packages have such universal application to businesses I've decided to devote entire chapters to them. These four packages are Accounts Receivable, Accounts Payable, Payroll, and Inventory.

In this chapter I'll first discuss some of the other types of software which can be used with the information the BPI System can provide you, as well as some of the other specialized software available from BPI.

No computer that can run the BPI Accounting System is necessarily constrained to run only that system. Most computers that run BPI also have a wide range of additional types of software, such as word processing, spreadsheets, databases, and other applications.

The amount of accounting work being done on your computer will decide if you have the time to make productive use of other types of software. The kinds of additional software you might choose to look at can be as varied as the range of businesses that can use the BPI Accounting System. Word processing software is one favorite, but the need for direct utilization of BPI information in a word processing environment is not likely to be as high as for spreadsheets, databases, and custom programs which might be written to either utilize BPI information or feed the BPI System. For this reason, these last three generic software application areas are what will be covered in detail.

SPREADSHEETS

Spreadsheets form one of the most popular classes of microcomputer software. They're a type of software that was unique to microcomputers; the development of the original spreadsheet program, VisiCalc, is generally regarded as one of the landmarks in microcomputer history.

The concept for spreadsheets was developed in 1978 by a Harvard Business School student named Dan Bricklin. At the Harvard Business School, students are required to learn by the case study method. With this method, an actual situation is described to the student. Based on the facts presented in the case, the student is asked to develop alternative solutions to the problems facing the company in the case. These alternative solutions often require a great amount of number crunching and "what if" analysis. That is, the student, in order to analyze the case properly, should examine several alternatives for the company. Typically these alternatives involve different courses of action or different allocations of resources.

During the classroom discussion of the cases the student is often obliged to provide facts to back up his or her opinion on the proper solution to the problem presented in the case. These facts might include things like the cost of various courses of action, the estimated return for certain types of investments, or the levels of return which can be expected for alternate levels of investment.

While doing these case study analyses, Bricklin found that he was often performing the same types of calculations over and over again. After he had set up a basic scenario he would be changing certain values within it. If he was studying a marketing problem, for instance, he might have a budget for advertising, promotion, and sales incentives. By varying the budgets for these three areas he could receive different results. Once he had done the analysis to find out the formulas which would calculate these results, he found that the actual calculation of the numbers was a very tedious and repetitive task. In addition, the manual calculations were always prone to error through simple mistakes in arithmetic.

Bricklin reasoned that this type of problem was one commonly faced in business, not just by students studying business. In addition, Bricklin realized that this type of problem would be very suited to solution by computer. What Bricklin had in mind was not a custom program to fit each specific case study. Instead, he thought that a generalized program could be written in which the user could specify formulas and values; by changing specific inputs, the user could then see the results of these changes instantaneously.

One story says that Bricklin took this idea to one of his professors at the Harvard Business School, who supposedly discouraged Bricklin by telling him that no one would buy such a program. Whether or not this story is true, Bricklin persevered with his idea and decided to translate it into reality. To do this he enlisted the aid of a master programmer named Robert Frankston.

The first personal computers were just appearing on the market at this time. Bricklin and Frankston chose the Apple II Computer to program his idea. The result was a program called VisiCalc.

Bricklin sought the services of another student, Dan Fylstra, to market the program. Fylstra had been successful in selling a microcomputer chess program. When VisiCalc was first introduced, it took a while to explain to people exactly what the pro-

gram did, because it was something unique. Once people understood what the program did, however, it immediately became a tremendous favorite. The program was so desirable that people would actually buy Apple computers just so they could run the spreadsheet.

Having a program which could sell entire computer systems was a unique phenomenon in those early days. Soon other microcomputer companies were anxious to have the VisiCalc program converted to their computers so that they would not be at a competitive sales disadvantage with the people at Apple. Both Fylstra's company and Bricklin's company became multimillion-dollar operations in a matter of a few years.

This American business fairy tale has a sad ending. VisiCalc was not upgraded enough to keep pace with new challengers in the marketplace. In addition, Bricklin's company and Fylstra's company fell to bickering over the sales job being done; both companies eventually ended up suing one another. Both companies eventually settled out of court, but in the meantime other competitors in the spreadsheet market had taken the lion's share of the market away from the original VisiCalc program.

In 1985, Bricklin's company was purchased by Lotus Development Corporation, while Fylstra's company was purchased by Paladin Software. VisiCalc, the program that started it all for spreadsheet programs like Multiplan, Lotus 1-2-3, and Lotus Symphony, was removed from the market.

How Spreadsheets Work

The most common analogy for spreadsheets is a piece of ledger paper which has been ruled off into columns and rows. Each of the boxes or *cells* formed by these columns and rows can contain text (a label), numeric information (a value), or a formula.

For example, let's say you had two columns on your spreadsheet, and the first two boxes in each column were labeled "Cost" and "Price." These would be titles.

In the second row of the spreadsheet, under the cost heading, you could place "1.00" to represent \$1.00. Most spreadsheets would allow you to choose a format for each of the cells or combinations of cells on the spreadsheet. Something like Multiplan or Lotus 1-2-3, for instance, would allow you to have your one-dollar value displayed as \$1.00. This dollar that you've entered to the cell is an example of a value.

In the second column you might have the retail price of the item. Let's say you price your items by applying a simple formula and taking the cost of the item and marking it up 40 percent. In this case you could say that the price is expressed by the formula $1 + (1 \times 0.4)$.

In many cases it's easier to refer to the value found in one of the cells, instead of putting a fixed value into formulas. If you numbered your columns A and B and your rows 1 and 2, then the first column's second row box would be A2. Using this address (or cell reference) in your formula, you would end up with a formula that looked like $A2 + (A2 \times .4)$. Instead of a formula, what would appear on the spreadsheet would be the price, and it would look something like Fig. 10-1.

The advantage of using this A2 reference instead of the one-dollar value is that changing the value in A2 would automatically update your price to the proper price. This is because the spreadsheet takes the value found in cell A2 and uses that in the formula of cell B2.

	A	B
1	Cost	Price
2	\$1.00	\$1.40

Fig. 10-1. Typical cell identification scheme for spreadsheets.

As you grew more clever on this, you would find that you could take the markup of 40 percent and also enter that into another cell on the spreadsheet. This way your formula would refer completely to the value in cells, and you could vary the markup and the cost price of the item in order to see the effects. In this way the spreadsheet can be made sensitive to changing cost prices as well as allowing you to play "what if" type analyses to see what the effects of changing markups would be on prices.

There are several books available on how spreadsheets can be used for business analysis. In fact, there are even books on business analysis with specific spreadsheets (i.e. books on business analysis with Multiplan, books on business analysis with Lotus 1-2-3, etc.). My purpose in this chapter is not to illustrate all the various types of analysis that can be done on a spreadsheet. Instead, what I'd like to do is talk about is what kinds of outputs from the BPI Accounting System lend themselves for use on a spreadsheet.

Data Transfer

Starting with version 2.0 of the BPI Accounting System, the various system modules had the ability not only to import files of data, but also to create files for use by other programs. The files created are standard text files (ASCII files) or files in the Data Interchange Format (DIF). If you have version 2.0 or later of the BPI System, you can also produce DIF files using data produced by earlier versions of BPI.

DIF, originally defined by the programmers of VisiCalc, was designed as a method of exchanging data between programs. Several programs can accept DIF data, including Lotus 1-2-3 and Symphony, either directly or by reformatting it. The problem with software which can't use the BPI-produced DIF files is that data must be manually transferred. This can be a large amount of work, depending on what information you want to use.

The BPI manual gives specifications on what these data transfer files are composed of. Custom programs can be written to generate or accept this data in the format specified by BPI. Except for the AURA multifunction program discussed below, you

will have to check to see if the other software you're interested in can use the BPI ASCII or DIF files, or if you'll have to enter the data by hand.

The creation of DIF files from BPI data is a great leap forward in terms of integrating the information found in your accounting system with other types of programs; once you get the information into another spreadsheet or database, however, you may have to edit the information to suit your purposes. The editing process is usually much simpler and easier than having to enter the data from the keyboard. In addition, it is also less prone to errors in entry.

If information must be manually entered from the reports generated by BPI, you must carefully assess the value that any additional software can bring to your business, and compare this value to the amount of work involved and entering data into a spreadsheet, database, or some other outside piece of software.

Spreadsheets and the Income Statement

The profit and loss statement contains a variety of information suitable for further analysis on a spreadsheet. It has been my experience that to really make this useful as a management tool, it's handy to track specific figures over several months. To see the figures for any one month, it's easy to look at the profit and loss (income) statement, but it's not easy to take 6 or 12 profit and loss statements and immediately draw some conclusions from them.

One thing to track over a 6- or 12-month period is the net profit or loss for the entire company—this is the bottom line. With a spreadsheet you can not only list the actual bottom-line numbers, but if you have graphics capabilities you can draw a plot of these numbers. Another thing that's useful to do is to calculate the percentage change from one month to the next for the profit or loss. With most spreadsheets, this is easy. After you've set up the spreadsheet in order to track an entire year's profit or loss result, you're only required to transfer 12 numbers from the BPI reports to the spreadsheet.

Another useful piece of information on the profit and loss statement is the tracking of individual expenses. Some expense items are linked directly to sales or salaries. Other expense items give you a lot more discretion and control. The tracking of total expenses or individual expense items could be very much like tracking the bottom line of your profit and loss statement. You can track 6 months or a year very easily, and if your spreadsheet has graphic presentations you could also graph them. As with the bottom line, you can even track the difference from month to month, up or down.

As with the profit and loss statement, the balance sheet contains many pieces of information of potential interests for tracking on a spreadsheet. The size of inventory, the amount of retained earnings, the total liabilities, accounts receivable, and accounts payable are all items that can have useful information when presented to you on a 12-month spread.

As a matter of fact, once the formulas are developed for doing this type of work, with most spreadsheets they can be applied equally to income, expense items, or any trend item that you might want to track. This makes this particularly useful spreadsheet very efficient, because you're not constantly developing new formulas, and the amount of data transfer which must be made from the BPI reports to your spreadsheet is quite minimal.

Graphics Output

Some spreadsheets (such as Lotus 1-2-3, AURA, and Symphony) allow you to present simple graphs along with the mathematical analysis. In practice, these graphs are very useful for looking at several pieces of data. For instance, if you construct a spreadsheet that looks at a 12-month trend of your profit, as listed on the BPI profit and loss sheet, a graphic presentation of this is usually much easier to understand than the raw numbers. The graphic presentation shows quite vividly the long-term trends of profits going up, down, or remaining stable.

Graphs are also very effective when presented to other business people, bankers, and potential investors in a business. Although these types of individuals will usually want to see the appropriate BPI reports, a graphical presentation of the same information is usually very useful and professional-looking.

DATABASES

A *database* is a software system designed to store, organize, and summarize individual pieces of data. In fact, a BPI System can be viewed as a very specialized database system in its own right.

When you talk about database systems like dBASE, CONDOR, and PFS, you're normally talking about a system that is very flexible. Just as a spreadsheet has the flexibility to handle different kinds of analysis for different purposes, a general-purpose database can also handle a wide range of applications, many of which may have nothing to do with your accounting needs.

In the accounting area, however, most databases will allow you to have a flexible way of creating reports and inquiries. The problem with this is that databases generally will not use the information you already have in your BPI System. As with the spreadsheet, you may have to manually enter or transfer the information from the BPI System to the database system, if the database can not use the external files generated by BPI.

An exception to this is the AURA multifunction program. Since AURA is marketed by BPI, it isn't surprising that this software package can work with BPI Accounting. With Version 2.0 of BPI, you can leave the BPI Accounting System and start working directly with BPI's AURA software package.

AURA is an integrated software package marketed by BPI. It offers a spreadsheet, a word processor, a graphics package, and a database package, all in one integrated program. This integration means you can take data produced in one portion of a program and use it by other portions of the program.

In this section we can't examine in detail all of the features of AURA—the AURA package provides over 2 million bytes of data and programs! However, it should be of interest to BPI Accounting Package users to note that with AURA you can integrate the data produced by your accounting system for further analysis with the spreadsheet, for use in memos with the word processor, for graphic presentations and easy viewing of trends, or for specialized reporting using the database.

By purchasing an additional program called the AURA Reformatter, the AURA user can import data from a variety of programs. These programs include Lotus 1-2-3, dBASE II, WordStar, the BPI Accounting System, and standard ASCII text files. With the AURA Reformatter, the database portion of the AURA System can accept infor-

mation from BPI General Accounting, Accounts Receivable, Accounts Payable, Payroll, and Inventory Control Systems. You can also transfer employee, vendor, and customer information, as well as general ledger information from BPI to AURA. Using the Reformatter, report designs, screens, and data files for formats are automatically created when transferring BPI information to AURA.

Once the information has been imported to the database portion of AURA, you can easily take this information and use it in spreadsheets, graphics, or written reports, or letters. This provides a very flexible planning tool for businesses and managers. The most convenient thing about this flexibility is that you do not have to reenter your accounting data with AURA and the Reformatter; the data is transferred automatically, using a few simple menu-driven commands.

Through the use of DIF files, BPI data can also be transferred to a variety of other programs. Transferring data using DIF files usually is a little more work than the automatic provisions of the AURA Reformatter, but using either unlocks your accounting data for use with other planning tools.

CUSTOM PROGRAMS

Another option for you with the BPI System is the creation of custom programs that will actually feed the system with accounting information or use the files created by the system. For instance, suppose you had a very special method of billing that could not be implemented by any of BPI's systems. If your billing requirements are truly specialized, you may consider having a specialized program written to handle them. Before you do this, however, you should understand that custom programming can be a very expensive and sometimes frustrating task. The expense is almost always more than off-the-shelf software to perform a similar task. The frustrating part comes from having little or no experience in giving your specifications in data processing terms, or in working with a programmer to debug your custom software.

An *external file* would be a file created in a format that BPI could use to enter to the General Accounting System. Starting with MS-DOS Version 1.1., BPI has provided information on what the various transfer files that feed the General Accounting System look like.

With Version 2.0, the BPI system can also generate files designed to be used by other systems. These are the same types of files which are generated by BPI Time Accounting, Inventory Control, Accounts Receivable, and Accounts Payable Systems. Transfer files effectively open up the BPI System, allowing knowledgeable users and programmers to write applications which can easily interface with the BPI Accounting System.

If you decide on a custom program which will feed the BPI System, there are some real cautions which you should be aware of. The first thing you should realize is that programs are subject to errors. With a well-tested program like BPI, which has gone through several versions, these errors are usually corrected before you get your copy of the program. This doesn't mean that there is absolutely no possibility that a programming error can't exist with BPI, especially with a version of the program that has been recently transferred to a new computer, but it does mean that BPI is quite familiar with the types of errors that might occur; they follow a rigorous testing and quality control schedule to try to minimize the chance of error.

When you have a custom program written for your business, or if you try to write the program yourself, you will have to go through the same kind of program debugging, quality control, and testing in order to assure that good data is being fed to your accounting system. The reason for this is that if the program you are writing has an error, it can also affect the data found in your BPI System (GIGO strikes again). One way to minimize this is to do all testing for your new program against test files. That is, make an additional copy of your BPI Accounting System files and use this copy exclusively for testing. Don't let a custom program feed your real accounting system until you've tested the custom program to your satisfaction.

I know this sounds like an elementary precaution, but in their enthusiasm to see something work even experienced programmers have been known to run an incompletely tested program on good data files. Soon, after running this untested program, the good data files are no longer good.

Not all versions of BPI can accept or generate external files, and if you're interested in this option you should make sure the version of BPI available for your computer can handle external files.

SPECIAL BPI SOFTWARE

BPI markets software aimed at particular industries or applications. This includes Association Management software, Church Management Software, Job Cost software, Time Accounting software, and several other specialized packages for business and personal use.

BPI Association Management

BPI produces an Association Management System that can work as a stand-alone system or in conjunction with the General Accounting System. This Association Management System is designed to provide computerized accounting, membership record keeping, project accounting, and even simplified text editing.

The Association Management System keeps track of contributions and pledges, membership statements, and membership lists. You can produce specialized listings of your members by specific group or category. You can also produce a directory showing home addresses and telephone numbers. If appropriate, even the name of the member's spouse can be shown. You can also produce mailing labels, which can be very useful when mailing out directories, statements, billings, and other correspondence to members.

The Association Management System also has a simplified text editor. This is designed for very short documents, usually around two pages long. With the member list and the text editor, you can produce "personalized" documents for each member. These personalized documents can include things like the member's name, the member's address, and the amount contributed throughout the calendar year. This kind of personalized form letter can be very useful for providing members with tax information or a simple thank-you note for contributions.

The system also provides the ability to track up to 10 projects at one time, providing you with information on the budget, the project cost, and the variance involved with each project. These project reports take the form of simplified profit and loss

statements with revenue items, if any, and cost items shown to you in separate sections on the report. Here are some of the headings found in BPI Association Management reports:

- Complete membership
- Members by group
- Selected members
- Form letters
- Fee statement
- Fee summary
- Fee schedule
- Statement summary
- Monthly member summary
- Pledges
- Project report
- Fees received journal
- Contributions journal
- Association management general ledger
- Listing of association management general ledger accounts
- Mailing labels

BPI Church Management

The Church Management System is somewhat similar to the Association Management System, except many of the reports and features of the system have been customized to the needs of a small- to medium-sized church or synagogue. The Church Management System provides you with accounting, record keeping, membership lists, and simplified word processing.

With the Church Management System, you can keep track of the members by all members or by special grouping codes (e.g., those members with small children, those interested in the choir, etc.). You can create up to 99 groups with the BPI System. A complete church directory and membership list can also be produced by the system, as well as reports and statements for pledges and contributions. As with the Association Management System, you can produce personalized form letters, as well as address labels and membership rosters.

The Church Management System also produces an income analysis report which helps you prepare budgets by projecting the income for the remainder of the year based on contributions received to date. The Church Management System will interface with the General Accounting System or act as a stand-alone system. Here are the Church Management System reports:

- Statement summary
- Contributions statement
- Monthly member summary
- Complete membership list
- Income analysis
- Family pledges

Directory
Form letters
Selected families
Selected members
Contributions journal
Deposit register
Church management general ledger
Listing of church management general ledger accounts
Mailing labels

BPI Job Cost System

The BPI Job Cost System is designed for businesses which control operations on a job-by-job basis; commonly this would be something like a construction business. The system is designed to work as a stand-alone system, and also to interface the General Accounting System, the Accounts Payable System, and the Payroll System.

The Job Cost System provides estimating, status, and financial tools to help you control your business better. To help you with your estimating, the BPI System allows you to create a master list of work codes. These work codes identify the individual portions of a particular job. For instance, for a construction company typical work codes might be:

CODE	DESCRIPTION
FD010	Foundation-labor
FD020	Foundation-steel
FD030	Foundation-concrete
FR010	Framing-labor
FR020	Framing-lumber

These codes can be grouped in a way that allow you to create subtotals for all the foundation work, for all the framing work, and for similar groupings of jobs.

For each of these work codes you can create a unit rate. This unit might be hours, yards, board feet, or whatever type of measurement makes sense. When creating a job estimate you can either put a fixed dollar amount for the various components of the job, or indicate the number of units that will be used on the job (e.g., the number of hours it will take to frame, the number of feet involved in the framing, etc.) From this, a formal job estimate will be produced by BPI. BPI will extend those items with a unit quantity and unit price to give you a grand total cost for the job.

As you proceed with jobs, BPI will give you a job status report. This job status report will be based on a percentage of completion entered against each work code. It also shows you the estimated units and costs for the job, the actual units and costs for the job, and the amount of variance found between the estimate and the actual. This type of variance report is extremely useful as an indicator of the status of a job, showing your progress on the job. It is also helpful as a learning tool, to allow more accurate future estimates as you track your current estimates against actual costs.

In addition to these two useful estimating and status tools, the Job Cost System

also provides a series of accounting tools. For instance, you can assign up to six cost types (administration, labor, materials, subcontracts, equipment, and other) to each of the work codes you've established for your estimating. A cost-type analysis report is then produced for you, so that you can help manage the various components of each job you're performing.

With the Job Cost System, a *retainage report* is a special type of profit and loss statement which shows you total income, total cost, and any profit and loss by job. And it also alerts you to the fact that retainage amounts are due on the job.

Listed below are the reports available in the Job Cost System:

- Job estimate
- Job status report
- Job cost general ledger
- Vendor summary
- Monthly job cost summary
- Job profit and loss
- Retainage profit and loss
- Job purchases journal
- Job cost cash receipts
- Labor cost journal
- Inventory transfers journal
- Job cost general journal
- Cost type analysis
- Job list
- Work code list
- Listing of job cost general ledger accounts
- Job cost vendor list

BPI Time Accounting System

The BPI Time Accounting System is designed to produce billings for customers of businesses which charge on a time and expenses basis. These kinds of businesses are often law offices, accounting offices, and other similar service organizations.

The system gives you three types of billing: billing by activity, which is on a time and hourly basis; progress billing, which handles retainers and partial billings; and final billings, when projects are completed. As you enter billing for particular clients, you can adjust the hourly rate charged to the client. With the system you can also keep track of expenses, chargeable time, and nonchargeable time.

A series of analysis sheets and reports show you the productivity of employees, as well as the billings by client. This client history can be for an individual billing period or up to a year's worth of activities. The Time Accounting System interfaces with the General Accounting System and the Accounts Receivable System. It can also be operated as a stand-alone.

For the Time Accounting System, a report called a *realization register* is produced. This lists all the clients you have billed in the period, and it compares the amount you are actually receiving from the client for the rates you would have realized at your stan-

dard rates. This report also shows you a gross profit. Here are the other Time Accounting System reports:

- Timesheet register
- Client time register
- Client time register summary
- Unbilled balance summary aging report
- Unbilled balance detailed aging report
- Client billing report
- Realization register
- Client status report
- Employee detail report
- Time accounting general journal
- Time accounting evaluation journal
- Time accounting general ledger
- Client history report

Other BPI Software

BPI also produces a Budget Analysis System, a Professional Tax System, a Personal Accounting System, a Personal Investing System, and an Information Management System. Although these products are useful for the jobs they're designed to do, they do not automatically interface with the General Accounting System.

Chapter 11

Computer Stuff

Since BPI is a computerized system, you will have to learn some things about your computer to operate it. All of us are affected by computers in just about everything we do. In addition, tens of millions of people have direct contact or control over computers in their business life, and they (usually) end up on top of the situation. With BPI you'll be dealing with a personal computer or microcomputer, which is one of the friendliest types of computers to use.

All computers, however, are pretty dumb. Although they can do many things extremely rapidly and well, they usually can't muster the understanding and reasoning power of an ten-year-old.

With most computers, if you don't command the computer in exactly the way it is expecting to be commanded, it will either do the wrong thing or it won't do anything at all (except perhaps make a lot of rude beeps and sounds at you while informing you that some kind of error has been detected).

Because of the many things computers can do well, most people become intimidated by them and may actually be afraid of them. It's important to remember that you're the one who's in charge when you are operating the BPI System on a microcomputer. Most of the problems with computers arise because computers are too stupid to understand what you mean.

Because most computers are so stupid, it's almost inevitable that some mistakes are going to be made. In addition to errors caused by pressing the wrong key and the computer not understanding your intentions, you are also going to have errors caused by the fact that you are going to be storing your data for the BPI General Accounting System on floppy disks.

BACKUPS

One of the most important steps in protecting the contents of a disk is simply to make a duplicate of it; this is called "backing up" a disk. Throughout this book the topic of backing up program and data disks have been mentioned many times. This is because backing up is one of the most critical steps in the proper operation of a computer system.

Backing up a disk is very much like having insurance. The backup is something you may never need, but when you do need it it's usually vital that it be available. When you backup a disk, you simply copy the contents of one disk and transfer it to another. You end up with two disks with duplicate information on them, one of which is usually put aside in a safe place for use if needed.

Sometimes people are lucky and never need to refer to or use their backup disks. This is because the primary disk never goes bad, never has an accident, or never causes a problem. This leads people to believe that they probably don't have to go through the extra step of creating a backup copy, but this is a very serious misconception. Sooner or later, almost every microcomputer user comes across a situation where a disk has been damaged or won't read or write properly with the computer. If a backup is not available, this can be disastrous.

You may be faced with reentering an entire month's worth of activity to bring your records back up to date. Compared to the few minutes it normally takes to back up a disk, the amount of activity involved in recreating the data can be enormous. It's really not worth skipping this important backup process just to save a few minutes.

Quality Counts

Another thing microcomputer users tend to do is to skimp on the quality of the floppy disks they buy. While nobody should pay more than they have to for any supply item (computer or otherwise), it's a serious mistake to simply buy the cheapest disks you can find. There is a difference in quality and testing with floppy disks. Something as vital as the accounting information for your company really should be put on high-quality magnetic media.

Because of their operating characteristics, Apple II disk drives can use just about any type of 5 1/4-inch disk made. Because of this, Apple II owners tend to buy just about any disk available. While this is often fine for hobbyist activities, it is not fine for a business function like accounting. Other brands of computers pack even greater amounts of information on floppy disk. These must be of high quality. Computers like the IBM PC, Zenith 150, or Texas Instruments are storing a great deal of data. The same is also true of the new 3 1/2-inch "microdisks" used on such computers as the HP.

Although you might use cheaper disks for the other operations of your business, I strongly urge you to buy good quality disks for your BPI operations. If you have trouble in distinguishing between good disks and bad disks, consult your dealer.

Making Backups

The actual process of making backups is usually pretty easy for any computer. To do this, you either use a special program or a copy command of your disk operating system (DOS).

All versions of the BPI System are written to run on computers with two disk drives,

which simplifies the copy process enormously. The process is usually to put the disk with programs or information in one of the drives and a blank disk in the second drive. Then you transfer the information and reproduce it on the second disk.

Depending on your computer system, the disk that you're going to use as the backup may or may not have to be formatted. Formatting is simply a way of putting electronic "sign posts" on the disk's magnetic surface so that the computer knows where it should be writing data. The BPI manual which comes with your system should tell you whether or not you need to format the backup disk before transferring the data.

The first backups you'll make will be of the disks provided to you as part of your BPI System. If you bought all modules of the BPI System (General Accounting, Accounts Payable, Accounts Receivable, Payroll, and Inventory), you're going to use over a dozen disks before you've entered your first dollar of data to your accounting system. With the price of good disks, this may give you some pause. Don't let it stop you.

As with any disk, the program disks supplied BPI can have problems or can be accidentally damaged. Therefore, what you should do is use your backup disks to actually run the system. Those original disks represent a software investment of hundreds or thousands of dollars. Don't balk on protecting that investment by refusing to make backups, especially when most versions of BPI specifically avoid copy protection schemes that actually prevent you from making backup copies.

Disk Killers

The two biggest killers of microcomputer disks are heat and dirt. Cars in the summertime are especially known for their ability to warp and ruin disks; in fact, they can get hot enough to melt plastic. Disk left by a window where they're hit by sunshine, especially in non-air conditioned rooms, are also prone to problems.

If you do end up with a disk that's warped, there is one emergency measure you can try. First, get a good blank disk and open its envelope by slitting one edge with a hobby knife; remove and discard the disk material inside. Then open up the warped envelope of the disk you're trying to rescue. Gently remove the disk material (if you're lucky, the envelope will not have melted on to the magnetic medium itself); handling it carefully by the edges, insert it into the good envelope.

Now insert it in your disk drive and try to read the data. If you can, immediately copy the data to another disk.

If this cure for warped disks seems to have a touch of "Rube Goldberg" about it, it's only because this is a last desperate measure to try to save a ruined disk and recapture the data there on. Obviously, the best thing to do is to take care of the disks and keep them away from heat that might cause this type of problem.

Contamination

The second major killer of disks is dirt and contamination. You may think that desktops and tabletops are convenient work surfaces, but experienced personal computer owners know that the primary purpose of flat surfaces is to collect dirt, dust, doughnut crumbs, cigarette ash, and other contaminants, and to keep this contamination safe until it can ruin one of your disks! By the way, a ruined disk of accounting data seems to usually occur just before an IRS audit, at tax time, or at some other important occasion.

The most common way that this contamination gets to your disk is when a person (who sometimes should know better) removes a disk from a disk drive and tosses it onto the table or desktop without first inserting it into its protective paper sleeve. This action is the data processing equivalent of Russian roulette. You can do it a hundred times and not ruin a disk, but sooner or later dirt or dust on the table will cling to the magnetic surface of the disk, scratch the disk, or otherwise prevent it from recording and reading properly. When this happens there's not much recourse.

If you've been following recommendations, you would have a backup disk, so the amount of data you have to recreate is not extensive. If you don't have a backup (which means that you're not going to follow the recommendations in this book), then you're faced with the problem of either trying to recreate all your data or trying to recover what you can from the disk.

Unless the file directory (the file that has information about all the other files on the disk) is damaged, usually the contamination and damage affects only one file or program; the rest of the files and programs can be recovered and transferred to a good disk.

There are some commercial programs and file utilities which try to recover what can be salvaged from a contaminated or damaged disk. In some cases these can be useful, but this type of program is not a substitute for proper backups. Even if this type of program is 95 percent successful in recovering a program or data, the 5 percent that's missing will most likely render the program or data file useless to you.

Disk contamination is such a great concern to manufacturers that the newer 3 1/2-inch microdisks used on the HP and Macintosh computers actually have an automatic shutter which slides back and forth, protecting the disk media. With the older 5 1/4-inch disk, the responsibility to place the disk in the protective plastic or paper sleeve that covers the holes is yours alone.

The lesson here is a simple one. Take care of your disks or you're likely to end up sorry.

HARD DISK

One of the most dramatic increases you can make in the performance of the BPI System is using a hard disk (or fixed disk, as it's sometimes known). When compared to the floppy disks used by most personal computers, a hard disk not only provides greater storage capacity, but much greater speed. For a program like BPI, which is very disk-intensive, this speed can make a dramatic decrease in operating time.

Efficiency is further increased because most versions of the BPI System are designed to be operated on either hard disk or floppy-disk computers. When used on a hard-disk computer, all the various programs and data files necessary for the various BPI modules can be contained on the hard disk. This results in a time savings when swapping disks between programs and systems modules.

BPI manuals have specific instructions on how to install and operate the system on a hard disk. There are some pieces of information not found in the manual, however, which you should be aware of.

The first is that, depending on how many BPI Systems modules you have, a considerable amount of your hard disk space can be taken up by the BPI System. If you have General Accounting, Accounts Receivable, Accounts Payable, Inventory, Payroll,

and Job Cost, around 2 million bytes of disk space can be used up for programs and data files. Since most hard disks for personal computers are rated from 5 to 20 million bytes, this storage space represents a substantial percentage of the hard disk devoted to the BPI application. On the other hand, for most businesses the BPI accounting application is one of the fundamental processes done by the business, so devoting this much of the disk space to BPI does not seem unreasonable.

A second thing to keep in mind is that many hard disk systems have a way of backing up the hard disk to a floppy disk that involves compressing the data. On the IBM Personal Computer, for instance, a special command (BACKUP) is available to save files to a floppy disk in a special compressed format; there is a command (RESTORE) that can read these files back into the hard disk and convert them to a normal format.

The compressed-format floppy disk, which is used as a backup, cannot be used with the normal BPI Accounting System on a floppy-disk computer. If something should happen to your computer's hard disk, you would have to find another hard-disk computer where you could restore your BPI data files, so that you could continue your accounting operations until your hard disk could be fixed.

For this reason, you should find out if the floppy disk on your computer has the capacity for holding the BPI data files in uncompressed form. If this is possible, then I would advise you to do save and back up your BPI data files that way. This would involve using more floppy disks when you create a backup. The trade-off here is that if your hard-disk computer has a problem, it is usually easier and cheaper to rent a floppy-disk computer as a temporary backup while your hard disk is being fixed. Under these circumstances, you could continue to operate the BPI System using floppy disks if your accounting data files were held in uncompressed form.

Often a hard disk can be purchased as an extra accessory for a floppy-disk computer. These hard disks can fit inside the computer case, or in a separate case that will sit alongside. The price of hard disks has dropped dramatically in recent years, especially from third-party sources who make accessory hard disks for other manufacturers' computers. If you're looking to increase the performance of the BPI System and your computer in general, then a hard disk is something that merits serious examination.

PRINTERS

The BPI System relies on a printer for the creation of various reports and listings. Some versions of BPI will let you control some aspects of the printer's operation (such as page advance) directly from the program, and all versions of BPI will accommodate a wide variety of printers. If you haven't already purchased your printer, there's a range to choose from with numerous features and a price spread from a few hundred to several thousand dollars. Besides price, the four major things to look at in a printer are speed, reliability, versatility, and the kind of interface available for your computer.

Speed

Speed is an important factor in choosing a printer because you don't want to wait around for reports longer than necessary. For a few hundred dollars there's a wide

range of printers of the dot-matrix type, which can print at 80 to 200 characters per second (CPS). Dot-matrix printers form letters by combining tiny dots into characters. Letter quality printers are printers which give you a better printed image, but which are usually much slower, sometimes as slow as 12 characters per second. Letter-quality printers that print faster than 55 or 60 CPS are quite rare.

Printers with a forms tractor (a mechanical feed mechanism that engages holes punched in the edges of the paper stock) are a definite plus when used with the BPI System. They'll allow you to use continuous-form invoices, checks, letterhead, and print-out paper. This is a real convenience when printing out large numbers of reports and documents.

If printer speed is a problem, you might consider purchasing a printer buffer. A *printer buffer* is a block of random access memory (RAM) that accepts characters to be printed as fast as the computer can spit them out. Then the buffer feeds these characters to the printer at the printer's preferred speed. Your computer can put out characters to a printer much faster than the printer can possibly keep up with it, so the printer buffer acts as sort of an intermediate station (or buffer) between the speed of the computer and the speed of the printer. This frees up your computer much more quickly than if it had to wait for the printer to complete all its printing.

Printer buffers come in two different types. One type of printer buffer uses your computer's memory. This "steals" some of the computer memory available to you, but the BPI program is not a memory intensive program. As I've mentioned, it relies very much on disk access, so that at any given time you don't need a lot of memory in your computer. If your computer has a large memory, some of this excess memory can be used as a printer buffer if you buy the proper software. Software to do this is usually available from computer stores; sometimes it comes free with computer cards for extra memory or with a disk operating system. This type of printer buffer is very popular for IBM personal computers.

Another type of printer buffer is a separate hardware device that plugs between your computer and your printer. As does the memory of your computer, this printer buffer provides random access memory which will accept data from your computer as fast as it will put it out and then feed the printer this data at the printer's own speed. This type of hardware printer buffer usually costs a few hundred dollars. It has the advantage of not needing a computer with a large memory capacity, so this type of buffer is a favorite of users who are running the BPI System on Apple II and similar computers.

Reliability

Reliability is an important factor in any piece of equipment. This is especially true of the equipment used in your business. Many BPI operations can be done without hard copy (or printed output), but the system is really designed to use the printed output for historical and audit purposes. This means that a reliable printer is almost as great a requirement as a reliable computer.

Fortunately, most modern printers for microcomputers are very reliable. Some experts feel that dot matrix printers tend to be more reliable than other types of printers because there are generally fewer moving parts, but the printing requirements of the BPI System can be met by almost any type of printer. Magazine reviews form one good

source of information on specific models and brands. Dealers are another source of information on printer reliability (they have to repair them when they go wrong, so dealers tend to carry only brands and models that don't cause them problems).

Versatility

The versatility of a printer means its ability to print different types of characters and line spacing. The printing required by the BPI System is very straightforward, and some of the fancier features found on printers may not be needed or used. If you use a printer only for BPI, versatility is not as big a factor as speed, price, or reliability.

However, most small business microcomputers are not dedicated to a single function. In addition to running the BPI package, most such computers are also expected to serve double or even triple duty for running spreadsheets, databases, or word processors. For these other applications, sometimes a compromise must be made on the type of printer you buy, and the versatility of a printer may then become a factor.

Interface

The fourth factor is the type of interface between the computer and the printer. An *interface* is simply a device which allows something to hook up to your computer. Sometimes computers come with built-in interfaces, and other times you must purchase the interface as an option. The two most popular kinds of interfaces for printers and computers are parallel and serial, although other types of interfaces (e.g., HPIB, IEEE488, etc.) can be found. A *parallel interface* sends all the information which makes up a character to the printer at one time. A *serial interface* sends this information as a sequence of individual signals, and the printer must reconstruct these commands to create the actual character.

As you might suspect, the parallel printer interface is usually faster than a serial interface, and for this reason the parallel interface is probably the most popular for use in microcomputers. Assuming you have the proper cable, parallel interfaces are also very easy to connect and don't involve the setting of any additional adjustments (or parameters).

A serial interface has several settings which must be adjusted for compatibility ("handshaking") between the computer and the printer. These settings for both the computer and the printer must be in agreement for the printer to work properly. Often these settings are made with switches on the computer or on the printer, but some versions of the BPI System can also do this through software. With these versions of the BPI System, the various settings for the printer can be saved and called back for reuse.

Some of the more common things you'll find in interfacing are the requirements for control characters. These allow you to send special characters to the printer, telling the printer you want characters printed in a certain size or manner. (This can be used for both serial and parallel printers to take advantage of some of the special characteristics of the printer).

The *baud rate*, which is only set for serial printers, is simply the speed with which the computer communicates with the printer. It takes a little experimentation, but the trick here is to set the baud rate as high as possible, while still assuring reliable printing.

The other settings found on the printer control menus in the BPI System involve the placement of the report on the page (things like page length and margin, etc.); these apply to both serial and parallel printers.

FIGHTING ELECTRICAL PROBLEMS

Aside from disk problems caused by sloppy handling or a lack of backup, electrical problems seem to form second biggest class of trouble for personal computers. When I say electrical problems I don't mean things like smoke coming from your computer when you turn it on (this has been known to happen, but with modern personal computers it is not what you would classify as a common experience). What I mean by electrical problems are problems with the circuitry that your computer is plugged into. These problems fall into two general areas: power surges and power failures.

Power Surges

Power surges can be caused by a variety of things. If you have an older house, you might notice a momentary dimming of the lights when you turn on the garbage disposal. The same can be true of industrial locations. When a large air-conditioning compressor turns on, for instance, there might be a temporary fluctuation in the power lines. If this fluctuation is pronounced enough, it can effect the contents or the performance of your personal computer. If you happen to be writing to a disk drive at the time of the power fluctuation, you could damage the information written to the disk.

Power surges can also occur in electrical outlets. Power surges might be caused by lightning or other electrical equipment. During a power surge, the voltage from the outlet can exceed the normal 110-115 volts most personal computers are designed to work with. Sometimes this excessive voltage could be in the thousands of volts, causing damage to your machine.

Both surge and fluctuation problems can be found in commercial buildings, especially those in industrial parks. You might be sharing the electrical circuitry with a welding machine or some other piece of heavy equipment and not know it. When that equipment goes into operation, it can wreak havoc with your computer.

Computer manufacturers often recommend a dedicated power circuit for their computers. With a dedicated circuit, the computer is the only thing on that particular line from the power pole, through the wiring of the building, down to the socket where the computer is plugged in. In this way, other equipment on that circuit will not affect the computer.

While a dedicated circuit is the ideal condition, the plain fact is that most companies don't need a dedicated circuit for the use of their personal computer. There are, however, some useful devices which can protect the computer from surges and power fluctuations. These devices look like extension cords or wall sockets, and cost from \$15 to \$150. They'll generally protect a computer from power surges and buffer it from power fluctuations. The range in price for these devices depends on how many features you want, the capacity of the device, and whether or not you want extra circuits, circuit breakers, indicator lights, and other things with the device. They can be found in computer stores or electrical stores.

Power Failure

The second kind of problem is a power outage or power failure. Some of BPI's instructions tell you that if you suffer a power outage when running the BPI System, you should go to your backup disk and reenter all the material for that day, up to the point of the power outage. They caution you to make a copy of the backup disk before doing this (a very sensible precaution, because a second power outage might ruin your backup disk, too).

This advice to start over is very conservative and sensible. It is not wrong, but going to this extreme is not necessary in all cases. If you are at a system's main menu when the power goes out, then there's a high chance that both the program and data disks will still be good when the power comes back on. If you're in the middle of a large printing job, where you are printing lists of various types (customer lists, general ledger lists, etc.), then it's also likely that your program and data disk will be in good shape, even if the power fails.

On the other hand, if you are entering data, posting data, running month-end or year-end processing, editing records, or adding records, then there's a good chance that when the power comes back on you might find that you've damaged data or programs on your disks. During these processes you are writing to the disk, instead of just reading from the disk. If the power should go out during the middle of a write process, then the information, indexes, and data files used by the BPI System may be in a damaged condition.

If you have been making a daily backup, then the worst that can happen is that you will have to reconstruct one day's entry. If you haven't been making a daily backup, then you are faced with a much more tedious task in data reconstruction. One thing you should note is that there's a good chance that the other data files on the disk may still be in good condition, with only the data file you are dealing with at the time of the power failure sustaining damage.

For instance, if on your data disk you have accounts payable, accounts receivable, and general ledger, and the power should go out while you're in the Accounts Payable System, then the chances are good that your general ledger and Accounts Receivable System data files are still in good shape and can be transferred to the new data disk you will construct from your backups after the power comes back on. Only the data in the accounts payable system need be reentered to the backup data disk.

Still, I strongly urge you to print out the appropriate journals and schedules to make sure that data entered to the accounts receivable and the general ledger system are not damaged, just to make sure you won't have to reconstruct the data in these systems, too.

UPS

Power failures are occurring with increasing frequency around the country, especially during summertime. For companies operating in areas where power failures are persistent, there is a device called an uninterruptable power supply (UPS). For big computers, uninterruptable power supplies can be quite expensive, costing tens of thousands of dollars. For personal computers, which have power requirements much

less than mini and mainframe computers, uninterruptable power supplies can cost between \$400 and \$1200.

For a personal computer, an uninterruptable power supply basically consists of a battery, such as a automotive or truck battery, as well as an automatic charging device to make sure the battery is fully charged when the power is working. Also included in the UPS is a device for changing the battery's dc current to alternating (house) current of the proper voltage. In addition, there's an electrical sensing device which cuts over to the battery if the house current should fall below a certain level, indicating a power failure.

These personal computer UPS systems are not designed to operate a computer for very long, usually from 4 to 20 minutes, depending on which device you buy. What they are designed to do is allow you to shut down whatever process you're operating and get out of the program. With the BPI System, this would mean that you would stop whatever printing, processing, or posting that is being done, get back to a main menu, and then exit the program normally.

You should then remove all the disks from the computer and turn off the computer power. When the power comes back on, you can start the BPI System again. You may have to reenter the particular batch you were doing or reprint some reports, but at least your data files should be in good condition and you will not have to go through the process of reconstructing a data file.

Chapter 12

The BPI Accounts Receivable System

Accounts receivable is the money people owe you because you've extended credit to them. Most businesses find it delightful when they get billing terms or credit from other businesses for the merchandise or service they purchase. This delight is not so pronounced if you are the one extending credit or deferred billing terms instead of the one receiving them.

There are many reasons for this, but the basic one is that people don't always pay their bills on time or in full. In fact, some people don't pay their bills at all. The result is that giving credit or billing terms to your customers means you must keep track of how much is owed to you and when it is due. If you give little or no credit, the accounts receivable ledger in the BPI General Accounting Package should handle the needs of your business. If you grant credit or billing terms to a great many customers, or if you need more detailed information about how much is due and when it is due, then the BPI Accounts Receivable System is worth your attention.

As with all BPI Accounting Systems, the Accounts Receivable (AR) System can be used as a stand-alone system or can transfer information to the BPI General Accounting System. It will also interface with the Time Accounting and Inventory System modules; Fig. 12-1 illustrates the relationship.

The AR system allows you to set up to four types of charge accounts. It allows you to use either the balance forward or the open item method of maintaining accounts (we'll discuss the difference later in the chapter). You can have up to two levels of finance charges, specifying the rate and the minimum balance, and you can waive finance charges for specific customers. You can specify the number of days in a billing period and the month that ends your fiscal year.

BPI Systems

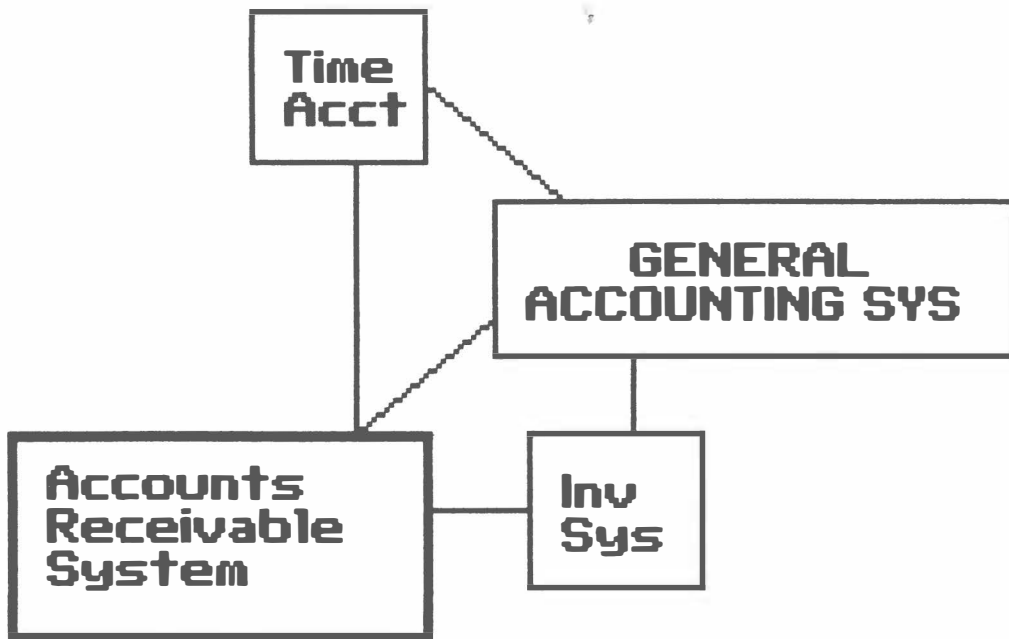


Fig. 12-1. This chart illustrates the relationship between the BPI Accounts Receivable System module and other modules in the BPI System. The Accounts Receivable System works closely with the General Accounting System, and will also interface with the Time Accounting System and the Inventory System.

As with the BPI General Accounting System, special data entry screens make your daily entries for regular customers faster and easier. You can produce aged receivables reports and also individual account analysis for customers. You can also print past due notices and mailing labels.

CASH FLOW

The subject of cash flow is important to most businesses, large and small. It is so important that we'll discuss it again when we talk about the Accounts Payable System from BPI. This discussion in Accounts Payable is an analysis of cash flow from the perspective of what you have to pay out. Equally important is an analysis of cash flow based on what you are receiving or expect to receive.

These two elements (incoming and outgoing cash) actually define what the cash flow of your business will be. For most businesses, expenses are incurred or merchandise is bought prior to making a sale or receiving payment. This means that you usually have to pay out money before you receive money. The gap between when you pay out and when you receive money is part of cash flow; most businesses depend on managing this cash flow to meet their obligations.

If you're in a business which grants credit or billing terms to your customers, then this gap between when you usually have to pay and when you receive money is lengthened. This increases the amount of money that your business has to have just to stay in operation, because most businesses can't stop their ongoing expenses while they wait for receipt of payment from customers.

When viewed in these terms, you may wonder why any business ever grants credit or billing terms to its customers. There are several reasons for this. One is because of competitive pressure. If your competition is granting credit or billing terms to customers, it makes your selling job harder if you're not doing the same. A second reason might be to gain a competitive advantage. If your competitors are not granting billing terms or credit, you might make it easier to make a sale if you do so. A third reason is that a properly managed credit operation can be a money maker. Since most people don't pay their bills on time or in full, you can charge a finance charge on late payments—and this finance charge could mean extra profits to your company.

FINANCE CHARGES

The topic of finance charges is something which deserves more discussion. A finance charge is an incentive for companies and individuals to pay bills on time. If it is large enough it is also a potential source of extra revenue. The maximum size of finance charges is often governed by state laws on usury, as well as common business custom. Organized crime may be able to charge 100 percent interest on credit extended, but the chances are excellent that your business won't be able to do the same.

If your money is tied up in accounts receivable, this is money which could be placed in a bank or money market account, or it might be money that you have had to borrow in order to finance (or "float") the amount of your receivables. If you're paying 1 percent or 1 1/2 percent per month interest on this money, you're obviously not going to make any money from a finance charge if you're only charging 1/2 percent interest.

In addition to the cost or potential revenue that money tied up in accounts receivable represents, there are also administrative costs of tracking of the money that people owe you. Although the BPI Accounts Receivable System can help in this respect, it still costs money to purchase the system, run your computer, and do any necessary follow-up.

A third factor in extending credit is that there are some accounts you may never be paid for at all. These fall under the category of bad debt; though you may eventually be able to write these off on your taxes, you'd almost always be better off being paid for your merchandise and services.

TWO ACCOUNTING METHODS

The BPI System can handle the balance forward or open item method of accounting for accounts receivable. You must choose one or the other when you establish your company. BPI cautions you to refrain from changing from one method to the other after starting operations. The reason is that a change in accounting method in accounts receivable will affect individual customer accounts. The effect may have some undesired or unexpected results. After describing the balance forward and open item method of accounting, I'll explain what some of these changes might be.

Open Item Method

The *open item method* of accounting for the Accounts Receivable System keeps track of each individual transaction by specific invoice number. Payments received by your company must be applied to individual invoice numbers. To do this, you can enter the individual invoice numbers when you're recording payments or you can simply enter ALL and the system will start applying payments to finance charges and open invoices beginning with the oldest invoice and working forward to the most recent invoice.

If a customer should make only a partial payment to an invoice, the system will record only the net amount due on that invoice in subsequent billing statements.

With the open item method of accounting, if a finance charge is generated by the system a separate invoice number is also generated for that finance charge and recorded against a particular customer. If you're entering payments and indicating specific invoice numbers (instead of using the ALL option of the system), you must then indicate not only the original number, but the finance charge invoice number when payment is finally received.

The basic advantage of the open item method of accounting is that a complete track with individual invoice numbers is kept of all the amounts due from a customer. This means that as statements are produced, any past-due amounts are identified by specific invoice number for both you and the customer. In other words, you know which items your customers owe you for.

The disadvantage of the open item method is that if you have many accounts that are carried over into the next accounting period, you use up a lot of storage space on your computer. Unless you're using the ALL option on entry when you are recording payments, recording the individual invoice numbers can prove to be extra work. In addition, you can't set up a fixed payment or revolving charge with the open item method.

Balance Forward Method

With the balance forward method of bookkeeping, detailed information about the individual invoices which make up the balance of a customer's account are not kept past the current period. In the current period, however, a detailed accounting of the various transactions on a customer's statement is produced at the end of a billing period. After this detailed accounting is produced, any previous balance forward and any new finance charges are all combined into a new balance forward amount. When a payment is received from a customer against this unpaid balance, the finance charges are credited first, followed by any unpaid amounts beginning with the oldest balance. With this type of accounting method, the BPI System allows you to have revolving charges and accounts with fixed payments.

The advantage of this system is that a balance forward method requires a great deal less storage space on your data disk than the open item method. The disadvantage is that any questions regarding what constitutes this balance forward amount may require some research on your part, because you would have to check copies of previous statements in order to get the detailed invoice numbers which made up the current balance forward.

Changing from Balance Forward to Open Item

After establishing one method of accounting, it is still possible to change the BPI Accounts Receivable System to the other method. If you have the balance forward system of accounting and you decide to change to the open item system of accounting, all customer balances will automatically become zero. In addition, any customer who has a revolving charge or fixed payment type of charge account will be converted to a regular charge account. Obviously, if you haven't kept good records and maintained a record of what the customer balances are at the time you try to convert, the reduction of all customer balances to zero is going to cause, to put it mildly, a problem.

To change from open item to balance forward, you must go through and manually eliminate all customer balances and references to customer accounts in the journals. This can involve a significant amount of labor on your part. Neither one of these changes can be made before an end-of-period processing if any journal entries exist. The moral is this: you should consult an accounting professional before choosing the balance forward or open item method of accounting to pick the right method for your business, avoiding a later conversion from one method to the other.

CREDIT ACCOUNTS

There are a variety of credit account types used commonly by business. BPI handles four types of accounts for customers. Each account can be charged with one of these four methods. If you have a particular customer who is ordering from you under two different sets of terms, then you would have to establish two different accounts to accommodate the two methods of credit being granted. This might happen because you have different credit terms offered for different types of merchandise.

Accounts Receivable Account

A regular *accounts receivable account* is the type of credit account most often used by businesses in this country. With this type of account, a statement is produced at the end of each accounting period (usually a month) and sent to the customer. This statement gives details on purchases and payments made during the accounting period. It also lists past-due balances (if any) owed to you by the customer. This unpaid balance is aged one period when you invoke the end of period command.

As with all types of credit accounts handled by the BPI System, you have a choice of whether or not you want to assess finance charges on this unpaid balance. With a regular accounts receivable account, the finance charges are only assessed on the past-due balance, not on any purchases made during the current accounting period.

Repetitive Charge Account

For some businesses, especially service businesses which offer regular service contracts, a *repetitive charge account* is also commonly used. With this type of account, a fixed charge is assessed against the customer, plus any individual purchases made during the accounting period. This fixed charge might be for something like a service contract, a retainer, a rental charge, or a standard monthly delivery charge.

With the BPI System you can create up to 100 different repetitive charges, but each customer may be assessed only one of these repetitive charges per accounting period. If you commonly have combinations of repetitive charges for your customers, part of these hundred classifications of repetitive charges available to your company could include combination charges. In other words, you could have a repetitive charge for a rental, a repetitive charge for a service contract, and a repetitive charge which combines both the rental and service amounts. With a repetitive charge account, any finance charges you wish to apply are only applied to the total past-due balance.

Revolving Charge Account

A *revolving charge account* allows a customer to charge purchases to the account at any time, and requires a minimum payment for each period. With the BPI System, the payment required will be the higher of two amounts. The first amount is a minimum dollar amount that you set when you install the Accounts Receivable System for your company. The other is a percentage of the unpaid balance. This percentage is also something you set.

Let's say that you set a 10 percent payment or a \$5 minimum on revolving charges. If an account had an outstanding balance of less than \$50, the statement sent to the customer would show a minimum payment of \$5. If the balance for the account were greater than \$50, then the 10 percent figure would be the higher of the two amounts, this is the amount due that would be shown to the customer on the statement. For instance, suppose a customer had a \$75 balance. Then the statement would show a \$7.50 minimum payment for the revolving charge account. When you execute your end-of-period command, only the unpaid minimum payment is aged. When you apply a finance charge it is calculated on the total outstanding balance each period. If you decide to use the revolving charge account type, a further restriction is that you must only use the balance forward bookkeeping method.

Fixed Payment Account

A *fixed payment account* is the fourth type of account handled by the BPI Accounts Receivable System. With this type of account, a fixed dollar amount is paid towards an outstanding balance by the customer. These types of accounts are usually established to accommodate customers who want to make installment payments with no finance charges if these payments are timely.

With a fixed payment account, only the unpaid installment is aged, and BPI restricts the assessment of finance charges and makes them allowable only if the installment is past due. In this case the finance charge is assessed against the total outstanding balance. As with revolving charge accounts, fixed payment accounts are allowable only if you use the balance forward method of bookkeeping.

Minimum Balance and Two-Level Finance Charges

In addition to the four types of charge accounts, which are set by customer, you can control the finance charges to be applied to these accounts. You can set a minimum balance for the application of finance charges, as well as two levels of finance charge based on the total amount of the balance. For instance, you may decide not to apply

finance charges to any customer balance less than a \$1, simply because the amount of paperwork involved to assess this charge is not justified economically. The system will let you set a minimum balance to which finance charges are applied. In addition, you can set brackets and finance charge levels.

Some companies charge one finance charge rate up to a certain amount and a different rate over that amount. As an example, let's suppose you wanted to charge 18 percent interest on all balances up to a \$1000 and 16 percent on remaining balances over \$1000. BPI would allow you to do this. If your company is not assessing finance charges, you can enter a zero to each finance charge amount asked for by the system.

BPI allows you to set the period for account aging. For most businesses this is 30 days, but the total aging period can range from 1 to 332 days on many versions of BPI AR. These aging periods allow the system to determine when an account is past due and when to apply finance charges. It also causes the account to appear on the aged accounts receivable report. The aging brackets used in the system are set by this single number. For instance, if you choose 30 days as an aging period, the next aging two periods would be 31 to 60 days and 61 to 90 days.

SETTING UP THE COMPANY

The company code used in the Accounts Receivable System is the same six-letter combination used in the General Accounting System. This can be letters, numbers, or hyphens as long as the first character is a letter. For most versions of the BPI Accounts Receivable System, this is done from Menu 1 of the system (Fig. 12-2).

ACCOUNTS RECEIVABLE GENERAL LEDGER

The Accounts Receivable System for BPI has to have its own general ledger created (as does the Accounts Payable, Inventory, Payroll, and other BPI modules). This Accounts Receivable general ledger should be a subset of the general accounting general ledger that you created. It would only include those accounts which are affected by accounts receivable transactions. These would be things like cash accounts, the accounts receivable accounts, sales tax accounts, sales accounts, delivery charges, discounts, sales discounts, and finance charges.

This mini-general ledger in the Accounts Receivable System acts as a place for depositing the various account totals managed, tracked, and accumulated by the Accounts Receivable System. Using one of the commands in the Accounts Receivable System, you can transfer the various balances from the Accounts Receivable general ledger to the General Accounting general ledger. Once this data is in the General Accounting general ledger, you can then consolidate reports and produce your normal trial balances and income statements.

One of the requirements for doing this is that the account numbers found in the Accounts Receivable general ledger should also be found in the General Accounting general ledger. That is, the Accounts Receivable general ledger should be a subset of the account numbers in the general accounting general ledger. If you have numbers in the Accounts Receivable general ledger not found in the General Accounting general ledger, you run the danger of an error. When setting up your AR general ledger you must have at least two accounts, an accounts receivable and a cash invoice account.

```

BPI Systems, Inc.
Accounts Receivable - Version 1.10
Menu 1 - Data Entry and Maintenance

1 Run Queue
3 Change/Exit BPI System
5 Change Menu

11 Enter Invoice Register
12 Enter Cash Receipts Journal
13 Enter General Journal
14 Enter Repetitive Charges

21 Print Invoice Register
22 Print Cash Receipts Journal
23 Print General Journal

71 Create Company
72 Edit Accounts
73 Print Schedules

74 Rename Company
75 Divide Customers

Data Drive : C
Company Code: XXXXXX
Password : XXXXXX

As-Of Date: MM/DD/YY
Today's Date: MM/DD/YY

Command Queue: Empty
Enter Command Number ==>

```

Fig. 12-2. The Accounts Receivable System menu has the same appearance as all BPI System's menus. Note that this menu is used to not only enter and print new information, but also to create the company and edit accounts.

If you assess finance charges, then a finance charge account is also mandatory. This finance charge account should be an income account.

Each repetitive charge in your Accounts Receivable general ledger should have an account number associated with it. For instance, if you are assessing delivery charges your general ledger for accounts receivable should have a delivery charge account number. By the same token, your General Accounting general ledger should also have a delivery charge account. Since the Accounts Receivable general ledger is a subset of the General Accounting general ledger, the same ranges, headings, and restrictions on account numbers will apply to the AR general ledger that also apply to the General Accounting general ledger.

COMPANY CONFIGURATION

After establishing the company code and the accounts receivable general ledger, you will then have to establish a company configuration. The company configuration allows you to customize the system to operate with a particular company. The BPI instruction manuals provide a step-by-step explanation of how to go about doing this, but there are some aspects of the company configuration establishment which bear further comment.

For instance, the password used for the Accounts Receivable System does not necessarily have to be the same password used for the General Accounting System. Normally you would want it to be the same password; if you have your accounting operations separated among various people, however, having different passwords for different portions of the system would provide another level of security. In this way an individual could access his/her own portion of the system to do the business involved with that portion of the system, but they could not access other portions.

INVOICES

If you do choose the open item method of bookkeeping, you can also choose to have the system validate the invoice numbers that you enter. To do so, it would check each invoice number you entered against those already recorded. If a duplicate is found, then you will get a message telling you that you are trying to enter the same invoice number twice.

If for some reason you want to enter a second transaction against the same invoice number, then the system allows you to do so through the general journal entries. As in general accounting, general journal entries allow you to change any account balance in the system and the duplicate invoice check is not done on general journal entries.

The invoice numbering methods for the Accounts Receivable System are very similar to those found in the general accounting. Briefly, these are:

1. The system will automatically generate invoice numbers starting with 1 and going to 99999 (for the IBM version of BPI AR).
2. You can enter an invoice number consisting of any combination of eight numbers, letters, hyphens, or special characters. The entry of this number is mandatory.
3. This is similar to option 2, except the entry of the invoice number is optional. You can only choose this option if you choose the balance forward method of bookkeeping. The open item method of bookkeeping requires an invoice number.

FISCAL AND CALENDAR YEARS

As with the General Accounting System, the Accounts Receivable System also allows you to choose different fiscal and calendar year-ends. The calendar year-ends are fixed, but a fiscal year-end can be any month you choose. This should match the fiscal year chosen for the General Accounting System.

INDIVIDUAL CUSTOMER RECORDS

For each customer account handled by the system, you have to create an individual record. These customers have a customer number assigned to them that is similar to the customer number in the General Accounting System. Customer numbers run from 1 to 9999 (on the BPI IBM version), but they're not preceded by the letter C as they are in the General Accounting System. You should note that if you're going to use the Accounts Receivable System you don't have to assign customer numbers in the General Accounting System. For each customer you also give name, address, and phone infor-

mation, as well as the type of account (regular, repetitive charge, revolving charge, or fixed payment).

You can also set up categories for customers, a very convenient way of grouping customers together. The code can be a maximum of two letters or numbers or special characters; BPI does not restrict or specify what these categories might be. Some suggestions might be:

MO	mail order
PH	phone
CH	cash accounts
CD	COD account

You can get a listing of customers by category from the BPI System, although the financial reports produced by the system are not sorted or subdivided by category. You should note that when you set up a customer account you can also set up customers who are not subject to finance charges.

ACCOUNTS RECEIVABLE PROMPTS

As with the General Accounting System, you can customize your entry screens. With accounts receivable you can assign up to 12 special prompts for the screen that allows you to enter invoices. When doing this you may want to leave one or two spaces open, and not use all 12 of the spaces available for the prompts. This will allow you to enter account numbers to handle transactions not covered by your normal entry prompts.

REPORTS PROVIDED

With the BPI Accounts Receivable System you are provided with the following reports:

- Cash receipts
- General journal
- Schedule of general ledger
- Listing of customers in numeric order
- Listing of customers in alphabetic order
- Listing of customers by category
- Listing of customers by account type
- Listing of repetitive charges
- Accounts receivable repetitive charge
- Account receivable finance charge
- Invoice register
- Accounts receivable general ledger
- Accounts receivable ledger
- Aged accounts receivable
- Customer statement
- Mailing labels

Account analysis for all accounts or selected accounts
Analysis of past due accounts for current period
Analysis of year to date past due accounts
Listing of accounts with waived finance charges

These reports are all accessed through the (hopefully) familiar BPI menu system (Fig. 12-3).

Several reports produced by the Accounts Receivable System can prove very useful to you. One is a cash receipts journal. This journal tracks all the cash received by your company by invoice number or account number, as well as the customer and date for receipt of this payment. Figure 12-4 illustrates this report.

Another interesting report is the accounts receivable finance charge report. On this report all the finance charges which have been applied to a customer's account are shown to you, along with a customer name and number, the current charges against that account, and the current billing period, as well as the total amount subject to a finance charge. The invoice register report is also very useful. These are all the invoices generated by your company throughout the month. They're sorted by date of invoice; you are also given the customer name and number, the invoice number, the account number, and the detail on net amounts involved. Figure 12-5 illustrates this report.

```

BPI Systems, Inc.
Accounts Receivable - Version 1.10
Menu 2 - Posting

1 Run Queue
3 Change/Exit BPI System
5 Change Menu

2 Erase Queue
4 Enter Company Code and Dates
6 Print on Screen /Printer

31 Post A/R Ledger
32 Post Finance Charges
33 Post A/R General Ledger
34 Print Mailing Labels

35 Print A/R Ledger
36 Print Aged Accounts Receivable
37 Print Account Analysis
38 Print Statements

41 Process End-of-Period
51 Transfer To G/A

Data Drive : C
Company Code: XXXXXX
Password : XXXXXX

As-Of Date: MM/DD/YY
Today's Date: MM/DD/YY

Command Queue: Empty

Enter Command Number ==>
```

Fig. 12-3. This menu is used by the Accounts Receivable System for posting and printing key accounts receivables reports. The aged Accounts Receivable report and Account Analysis are especially useful for keeping track of a company's cash flow.

CORNER HOME IMPROVEMENT CENTER
CASH RECEIPTS JOURNAL

AS OF 01/01/86

PAGE 1

DATE	CUSTOMER NO. NAME	INVOICE NUMBER	ACCT NO.	DETAIL	NET AMT
06/01/85	30 RYSING, GRANT (PAYMENT)		1021	144.40	144.40
06/01/85	10 HACKETT, ARNOLD (PAYMENT)		1021	156.90	156.90
06/01/85	20 HOWARD, TIMOTHY S. (PAYMENT)		1021	17.40	17.40
06/01/85	17 PERRY, ALEXANDER (PAYMENT)		1021 8539	180.92 3.69	184.61
06/02/85	25 PARKER, JAMES (PAYMENT)		1021	29.97	29.97
06/03/85	3 FOSTER, JOE T. (PAYMENT)		1021	42.85	42.85
06/03/85	21 CURTIS, JOHN (PAYMENT)		1021	32.30	32.30
	BATCH TOTAL				608.43
06/06/85	15 YOUNG, WILLIAM (PAYMENT)		1021 8539	144.42 2.95	147.37
06/06/85	16 RAY, WILLIAM H. (PAYMENT)		1021	75.00	75.00
	BATCH TOTAL				222.37
06/10/85	5 MOODY, CYNTHIA (PAYMENT)		1021 8539	124.47 2.54	127.01

Fig. 12-4. The cash receipts journal is used to provide a detailed audit trail of the money received by your company.

06/11/85	13 HORNSBY, MICHAEL (PAYMENT)	1021	50.00	50.00
06/11/85	23 STILLS, FRANK (PAYMENT)	1021 8539	150.32 3.07	153.39
06/12/85	27 MOLLOY, JOHN (PAYMENT)	1021	34.50	34.50

AGED ACCOUNTS RECEIVABLE

The system gives you a report on the accounts receivable due your company. This is a complete listing of all the accounts being carried by your company. Part of this report, and part of almost all reports in the system, is a summary. To help you manage the cash flow of your company, the system produces an aged accounts receivable report, which is very useful for helping you to see which customers owe you money, and for collecting those amounts.

The aged accounts receivable report gives you the customer name and four categories for aging. Most companies choose a 30 day aging period, so the four categories in this case would be 0 to 30 days, 31 to 60, 61 to 90, and over 90 days. A total ending balance is also given to you. This report can be used to help you manage your collections activity, so you can identify which customers are past-due on their payments to you, and exactly how much this past due amount is.

A companion report to help you on this is an account analysis report. This account analysis report can be obtained for all accounts, for selected accounts, or for past-due accounts. On the past-due account version of this report you not only have the customer name and number, but also the address of the customer, the phone number, and the date of the last transaction for the customer. You also have complete information on past-due amounts, the high balance for the customer, the charges on a year-to-date basis, finance charges on a year-to-date basis, and a billing history.

BAD DEBTS

Sooner or later you're going to come up with customers which simply aren't going to pay their bill. These may be individuals who file bankruptcy, who skip town, or who owe you an amount that's so small that it's not worth taking legal action in an effort to collect. These kinds of debts can usually be written off as bad debts on your books, and an accounting professional can help you gather information on normal procedures followed for businesses in your industry for taking this action. Usually you're required to make a good faith effort to collect the debt; other rules also may apply, but again this is an area for professional advice.

The number of bad debts on your accounts receivable will be something looked at by banks and other financial institutions if you wish to obtain a loan for your business. The aging of your accounts receivable is something that is usually also interesting to financial institutions. With a system like the BPI Accounts Receivable System, both this information (in summary and detailed form) is easily obtainable.

CORNER HOME IMPROVEMENT CENTER
INVOICE REGISTER

AS OF 01/01/86

PAGE 1

DATE	CUSTOMER NO. NAME	INVOICE NUMBER	ACCT NO.	DETAIL	NET AMT
06/01/85	5 MOODY, CYNTHIA (CHARGE)	625	4013 2030	32.30 1.29	33.59
06/01/85	23 STILLS, FRANK (CHARGE)	626	4012 4013 2030	104.13 93.28 7.90	205.31
	BATCH TOTAL				238.90
06/06/85	22 WATKINS, DOROTHY (CHARGE)	627	4013 2030	44.27 1.77	46.04
	BATCH TOTAL				46.04
06/10/85	3 FOSTER, JOE T. (CHARGE)	628	4012 2030	109.83 4.39	114.22
	BATCH TOTAL				114.22
01/01/86	5 MOODY, CYNTHIA (LUMBER DELIVERY)	R/C5	8069	20.00	20.00
01/01/86	18 PETERSON, MARGARET (LUMBER DELIVERY)	R/C18	8069	20.00	20.00
01/01/86	29 WILLIAMS AND BLAKE (WAREHOUSE RENT)	R/C29	8029	1,250.00	1,250.00
	BATCH TOTAL				1,290.00
	TOTAL				1,689.16

Fig. 12-5. The invoice register provides a detailed summary of the invoices prepared by the system.

SUMMARY

The BPI Accounts Receivable System is designed to work with the General Accounting System to provide you with closer control of your receivables. If you have a business which does not have many customers who buy on credit, or if you don't grant credit at all, then the accounts receivable ledger portion of the General Accounting System may be satisfactory for your needs. If you're in a business where the granting of trade credit is normal and you have several customers who carry open accounts, revolving accounts, or other types of accounts with you, then the BPI Accounts Receivable System will probably make a good companion to the General Accounting System, or it may even be operated on a stand-alone basis.

Chapter 13

The BPI Accounts Payable System

Accounts Payable are those accounts for which you owe money. This is something most of us would just as soon forget. Unfortunately, reality (and the people we owe the money to) don't usually allow us to do this.

The BPI Accounts Payable module replaces the Accounts Payable Ledger in the General Accounting System. Whether or not it would be desirable for you to do this depends very much on the nature of your business. If you deal with very few suppliers and pay for everything in advance or upon receipt of merchandise or supplies, then the accounts payable ledger in the BPI General Accounting Package probably is quite adequate for your needs. Even if you don't pay for everything immediately on are dealing with just a few suppliers, the accounts payable portion of the General Accounting System may still be adequate for your needs. However, the General Accounting System does not record detailed information, such as addresses and historical data about vendors.

There are a great many businesses, however, which don't fall into these two categories. These businesses deal with dozens or even hundreds of vendors and they often depend on the trade credit granted by these vendors to maintain a proper cash flow.

TRADE CREDIT

Trade credit is simply credit given from one business to another. Usually this means you don't have to pay your bill to this vendor for several days. The exact terms for this trade credit can vary from vendor to vendor, but typically a vendor will give you 20 to 30 days after presentation of a statement or a bill to pay that bill.

With rising interest rates, the terms for trade credit have gotten tougher over the

years. In the past it wasn't too unusual to find trade credit being granted for 60 or even 90 days. Now 30 days is more common, and even payment on delivery of the bill or within 10 days thereof is not uncommon. Since many vendors don't have extremely efficient billing cycles, however, even if you have to pay on presentation of the bill, you still can often enjoy the use of supplies or merchandise for several weeks before having to pay for it.

For most businesses this is important. Trade credit is an important source of credit because it is usually "free." In other words, for the time you're using the supplies or merchandise before having to pay the bill, the cash value represented by these supplies and merchandise is not building up interest or coming out of your pocket.

In fact, since many vendors will give a discount if you pay early on a bill, you can even "make" money off the transaction simply by paying your bills promptly and within the discount period allowed. Once again, whether or not a vendor offers a discount varies widely from vendor to vendor, but if a vendor does offer a discount, typical terms might be a 1 percent to 2 percent discount if a bill is paid within 10 days of presentation. Smaller discounts are often found, but these discounts are not always effective. If the early payment discount gets too small, it is often worth your while simply to pay the bill at the end of the period granted you; the money saved with the discount is much less than the cost of borrowing money for the same period.

When you start comparing the terms of trade credit to borrowing money from a bank, trade credit starts looking pretty good. In fact, for most businesses it's probably the best source of credit, next to a rich Uncle Louie who always liked you best.

CASH FLOW

What makes credit important to most businesses is the concept of *cash flow*. As discussed in the previous chapters, cash flow is the amount of money coming into the business, the amount of money going out of the business, and the timing of this inflow and outflow of cash. Almost all businesses, from the largest corporations to the smallest enterprises, depend on their cash flow.

The timing of cash flow is the important concept. After all, it doesn't do you any good to have millions of dollars coming into the business 6 months down the road if you can't meet this month's payroll. To survive in business until you can collect on those millions, you'll have to find cash somehow to keep your business going. This situation is called a *cash flow problem* and it's one of the things that often does in a small business.

A business can have tremendous assets, merchandise, and accounts receivable, but if it doesn't have enough cash to pay this month's salary and rent, it possibly may be out of business next month. The Accounts Payable Package from BPI, along with the companion BPI Accounts Receivable Package, helps you to manage cash flow.

Specifically, the payables package helps you to keep track of the money that you owe to others. It helps you keep track of how much you owe and when you owe it. It also tells you if you can save money through early payment. The Accounts Payable package also has several nice features which help you analyze how much business you're doing with particular vendors. It has other features, such as the production of address labels or file cards for vendors.

As with other BPI modules, the Accounts Payable System can be operated with-

BPI Systems

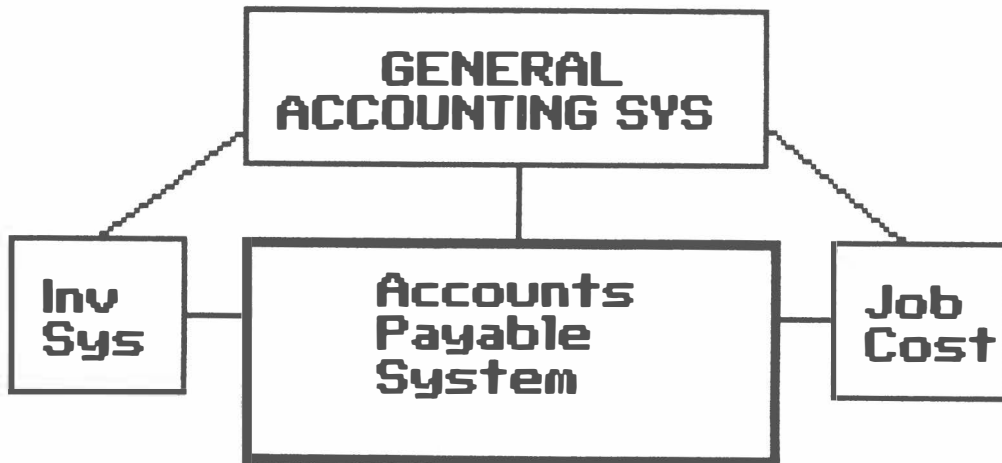


Fig. 13-1. The Accounts Payable System can act as a stand-alone system or it can interface with the General Accounting System, the Inventory System, or the Job Cost System.

out the General Accounting Package. It also interfaces with the Inventory and Job Cost system. Figure 13-1 illustrates this relationship.

Cash Famine and Cash Feast

If your business happens to find itself in what is euphemistically known as a “cash crunch” (i.e., you’re out of ready money), then the accounts payable reports, in conjunction with the accounts receivable reports from either the General Accounting system or the BPI Accounts Receivable system, allow you to monitor closely the money going into and out of your business.

The cash requirements report of the BPI Accounts Payable system will help you gauge your needs for loans or fresh capital in the future; if things start really looking grim, your aged Accounts Payable reports will tell you how much you owe to your vendors and how much of this is due within particular time periods. Obviously, to be this short of cash is not a pleasant situation, but the accounts payable system and the rest of the BPI accounting system can give you the information you need to have at least a fighting chance of pulling yourself out.

A more pleasant situation is the one where the BPI accounting system helps you manage your extra cash better. In these circumstances the BPI accounting system won’t let you forget that you can gain vendor discounts from early payment. Assuming you

enter all the bills properly, it also won't let you forget a bill, thus avoiding any embarrassing notices or letters from your creditors or vendors.

In case of an audit by the IRS, if you want to sell your business, or if you want to get a loan for the business from a bank, the reports in the Accounts Payable module form an accurate and impressive record of your business' Payables transactions. Your cash requirements report can also help you earn additional profit for your business by putting excess money to work.

A Case Study

The most extreme case of how the BPI Payables System could help an organization earn extra money that I've ever encountered was a computer users' group I once advised. This group had become very successful after a very long and very slow start. The people who ran the group were very intelligent, but they were primarily engineers and technicians, not business people.

As a result, when the group became successful they found themselves with over \$200,000 in a non-interest-bearing checking account. To add insult to injury, the financial institution that had the checking account was charging a service charge on the account, despite the extremely high balance maintained by the group.

The actual cash outlay of the group was very small, about \$17,000 per month; and this \$200,000 sum represented almost a year's worth of cash outlay for the group. Through the use of proper cash management and good information from an accounting system, they found that they could put most of this money into either interest bearing accounts or long-term certificates and notes. Thanks to this information, the group earned a substantial amount of extra income.

Professional cash managers may be horrified by this story because of the amount of money involved, but the fact is that not having good information on what your future cash requirements are means you're really unsure of what you should do with the cash reserves your (or any business) may build up.

Managing Cash Flow with BPI Accounts Payable

The Accounts Payable System gives you several tools to manage the cash flow of your business. The management of this cash flow is quite important, no matter what the financial status of your business might be. The system gives you a cash requirements report which shows you the amount of cash needed to pay bills due on a date you specify. Another report is an aged accounts payable report, which shows, by vendor and by due date, the amount of money needed by your company.

The aged accounts payable report and the cash requirements report both give total cash requirements for specific dates. This can help you plan your expenditures and payments to maintain tight control of the cash in your business. For many businesses, including businesses which are actually quite successful in terms of sales, this maintenance of cash control is a key element in success.

SYSTEM ORGANIZATION

Most versions of the BPI Accounts Payable System are organized around three menus. The first menu is for data entry (Fig. 13-2). The second menu is for processing

BPI Systems, Inc.
Accounts Payable - Version 1.10
Menu 1 - Data Entry and Checks

1 Run Queue	2 Erase Queue
3 Change/Exit BPI System	4 Enter Company Code and Dates
5 Change Menu	6 Print on Screen/ Printer
11 Enter Voucher Register	21 Print Voucher Register
12 Enter Voucher Updates	22 Print Cash Requirements
13 Enter Automatic Entries	23 Print Aged Vouchers
14 Enter Manual Checks	24 Print Check Selection
15 Enter Void Checks	25 Print Checks
16 Enter General Journal	26 Print General Journal
	27 Print Check Register
Data Drive : B	
Company Code: CORNER	As-of Date: 01/01/86
Password : XXXXXX	Today's Date: 01/01/86
Command Queue: Empty	
Enter Command Number ==>	

Fig. 13-2. The Accounts Payable System has a series of menus. This menu allows you to enter new information and print a variety of useful reports to help manage the cash flow of your business. Note that the system uses a voucher number system, which is cross-referenced to the actual vendor invoice.

end-of-period and end-of-year (Fig 13-3). The third menu is for maintenance, such as editing accounts (Fig. 13-4).

If you followed the discussion on the BPI General Accounting System or other BPI modules in this book, the appearance of these menus will be very familiar to you. As with other BPI systems, the Accounts Payable menus allow the creation of a queue for commands; the command numbers that can be queued are shown in inverse video on the screen.

If you're using the BPI Accounts Payable System with the General Accounting you do not have to setup the accounts payable ledger in the General Accounting System. This does save you work. There is, however, some repetitive effort which must be done in setting up accounts payable. This repetitive effort involves setting up the company and ledger accounts.

COMPANY CONFIGURATION

If you've set up the company configuration in the General Accounting System, then setting up the company configuration for Accounts Payable should be straightforward (Fig. 13-5).

The familiar questions that you know from General Accounting are things like com-

pany name, password, address, and phone number. Normally the password used should be the same password used in the General Accounting System. However, if you plan on having different individuals entering accounts payable, accounts receivable, and the general accounting, you might also consider having different passwords. This prevents people who aren't authorized from having easy access to the other parts of the system. It also means, however, that you have several passwords to keep track of.

Accounts

After company creation, an Accounts Payable general ledger is created. This general ledger for Accounts Payable should be a subset of your General Accounting General Ledger. The accounts found in the Accounts Payable general ledger should only be those accounts affected by your Accounts Payable activity. These are things like cash accounts and expense accounts.

The BPI Accounts Payable System has certain accounts which must be created. You must establish at least one cash account in your Accounts Payable general ledger. This is where the money used to pay bills comes from. You will also need an Accounts Payable account number. If you plan to keep track of any discounts you've taken by paying your bills on a timely fashion, you'll have to set up a discount account well.

BPI Systems, Inc.
Accounts Payable - Version 1.10
Menu 2 - Posting

1 Run Queue	2 Erase Queue
3 Change/Exit BPI System	4 Enter Company Code and Dates
5 Change Menu	6 Print on Screen/ Printer
31 Print Posted A/P Ledgers	34 Print Vendor Analysis
32 Print A/P Distribution	35 Print Vendor Ledger Cards
33 Print Vendor Query	36 Print All Reports
41 Process End-of-Period	51 Transfer to G/A
42 Process End-of-Year	52 Transfer J/C
	53 Transfer I/C

Data Drive : B
Company Code: CORNER
Password : XXXXXX

As-of Date: 01/01/86
Today's Date: 01/01/86

Command Queue: Empty

Enter Command Number ==>

Fig. 13-3. The posting menu of the Accounts Payable System allows you to print and process a variety of reports. Note that the menu choices in the 50 series allows the creation of files which will transfer information to the General Accounting, Job Cost, and Inventory Control Systems.

BPI Systems, Inc.
Accounts Payable - Version 1.10
Menu 3 - Maintenance

- | | |
|--------------------------|--------------------------------|
| 1 Run Queue | 2 Erase Queue |
| 3 Change/Exit BPI System | 4 Enter Company Code and Dates |
| 5 Change Menu | 6 Print on Screen/ Printer |
| 71 Create Company | 74 Change Company Code |
| 72 Edit Accounts | 75 Print Cards/Labels |
| 73 Print Schedules | |

Data Drive : B

Company Code: CORNER

Password : XXXXXX

As-of Date: 01/01/86

Today's Date: 01/01/86

Command Queue: Empty

Enter Command Number ==>

Fig. 13-4. The maintenance menu for the Accounts Payable System is very similar to other BPI menus. This menu allows access to some of the extra features found in this particular system, such as the printing of ledger cards or mailing labels for vendors.

Voucher System

The Accounts Payable System is organized around a voucher system. A *voucher* in BPI Accounts Payable is simply a unique number assigned to every entry for bills that you must pay. Use of this voucher number in the BPI System has both good points and bad points. The major bad point is that you're introducing another level of code numbers that you must deal with. The major good point is that these code numbers are automatically assigned by the system, based on rules that you establish, and they're helpful in cross-referencing vouchers, vendors, vendor numbers, accounting periods, etc.

The voucher number tells you when the bill was entered, based on accounting periods. These accounting periods are numbered 01 through 90 and they automatically increase each time you process the end-of-period command. When you process the end-of-year command, the first two digits of the voucher number are reset to 01. This automatic increase and resetting of the first two digits of the voucher number allows you to set it to correspond with your accounting periods.

For instance, if your books are kept so that the first month of your accounting year is January, it is very easy to have all your January vouchers start with the number 01, your February vouchers would start with number 02, and so on down the line until you reach December, which would be 12. After December's processing, the first two

digits of the voucher number would be set to 01 again, repeating the cycle for the next year.

To make these first two digits of the voucher number easier to read, BPI prints them separated from the remaining voucher number by a dash (e.g., 03-0105). The next four digits of the voucher number are simply a sequential number based on the order of entry for the bills to the accounts payable system. The first bill would be 0001 and so on throughout the month or accounting period. Figure 13-6 illustrates the voucher register used by this system. Note the voucher number in the upper left of the screen and the vendor invoice number under the vendor address.

One to Many or Many to One

One thing you should note about voucher numbers is that they do not have to correspond on a one-for-one basis with the bills you receive. If you don't need the detail accounting of these bills in your accounts payable system, you could combine two or three bills from the same vendor under the same voucher number.

One important hint is that as voucher numbers are being assigned to bills, it is usually

```
BPI Systems, Inc.
A/P-Edit Company Configuration: C:CORNER 3.72.2

Printed Company Name:
CORNER HOME IMPROVEMENT CENTER
Password-----> RENROC
Address 1-----> 1234 MAIN STREET
Address 2-----> NEW YORK, NY 10101
Address 3----->
Phone Number---> 212/862-1234
Transfer to G/A> Y
Transfer I/C---> N
Transfer J/C---> Y
Automatic Entry> Y

Enter printed company name or press F1
```

Fig. 13-5. Company creation in the Accounts Payable System is similar to company creation in the General Accounting System, although considerably less information is required. Please note that the password for the Accounts Payable module is optional. If you do choose to use the password, you might consider using a different password than the one used for the General Accounting System. This is useful to improve system security if different people are entering data to the General Accounting System and the Accounts Payable System.

A/P - Enter Voucher Register: CORNER 1.11		
Entry No: 1		
Voucher: 06-0073	Type(I/C/D): I	
Vendor: Joseki Computer Corp.		
Addr : PO Box 1329		
Addr : Redondo Beach CA 90278		
Invoice: 14609	--Date-- 01/01/86	--Amount-- \$ 239.50
Discount:		\$.00
Invoice Net		----- \$ 239.50

Fig. 13-6. The Accounts Payable System uses a voucher number illustrated on this entry screen. The first two digits of the voucher number are the accounting period. For a company on a monthly accounting basis, this would normally correspond to the calendar month. The actual vendor invoice number is carried as part of the voucher information, so the voucher number (06-0073) must be used to cross-reference the vendor and vendor number.

very convenient to write the voucher number on the bill to provide an audit trail that links the various bills received by the business to the voucher numbering system. BPI does produce a report called the *batch proof*, which shows you the detailed information on voucher numbers and vendor name and invoice numbers, but I've found that actually writing the voucher number on the bill is not a burdensome job and makes for a much more convenient reference if questions arise later.

ACCOUNTING METHOD

For the Accounts Payable System you also will have to specify whether you are using the cash method or accrual method for accounting; these have been discussed in the chapters on the General Accounting System. Whatever method you've chosen for the General Accounting System should be followed with the accounts payable system. You should note that once you've chosen a cash or accrual method of accounting, you cannot change your method. You will have to reinstall the Accounts Payable System as if you were creating a new company if you decide to change your accounting method.

With the accrual method, income is recognized and recorded in your books when it is earned, regardless of when money is actually received. Expenses are recorded when

they are incurred, regardless of when you actually pay them. If you choose the cash method, income is recorded in your books only when the money actually is received by your company. By the same token, expenses are recorded only when they are actually paid by your company. In BPI Accounts System using the cash method, no vouchers in the data disk are posted until the bill is actually paid, and no accounts are charged until a payment is made.

DISCOUNT METHOD

The BPI System can track lost discounts for you. A *lost discount* is simply money that you might have saved by paying a voucher or payable invoice on time. BPI gives you two options for this:

1. The system automatically removes discount amounts if a check is produced after the discount date. It will keep track of these lost discounts for you with a special *discount memo*, a note entered to the check register after printing checks. Lost discounts for a period and year-to-date are also included on the vendor ledger.
2. With option two the system always takes the discount, regardless of the date the check is printed. You must manually remove lost discounts by updating the voucher.

CONVERSION TO BPI ACCOUNTS PAYABLE

There are two basic choices on how you can convert to the Accounts Payable System. One would be to take the existing balances and enter them to the Accounts Payable System. The other would be to let your current system phase itself out, and to start using the BPI Accounts Payable System only for new invoices.

The second choice is the simplest for conversion. On a certain cutoff date, you simply start entering the new invoices to the BPI System. In the meantime you handle the old invoices with your old system until they are completely paid off. Ideally, you should do this at the end of a month-end, so you have a clean cutoff on the bills with the old system and the bills on the new system.

If you decide to convert your current balances to the BPI Accounts Payable System, you can do so in a couple of ways. One is simply to take all the open invoices for each vendor in your old system and add them up under one voucher number in the BPI System. This gives you a single balance forward number to enter to the system. If a question arises about part of this balance forward, you would have to go back to your original system to research the components of this number. If you had a clean cutoff and kept good records, this would not be very burdensome.

The other thing you can do is to enter each of the open invoices separately to the BPI Accounts Payable System. This gives you a detailed accounting of each of the individual invoices owed to vendors. Although this second method sounds like more work than the first method, on analysis it might not be.

After all, to get your balance forward figure to enter with the first method (i.e., grouping all the open invoices into a single number) you'll have to go through the invoices and add up the totals anyway. By entering the detail to the BPI System, you

will enter more data in terms of invoice numbers and dates; on the other hand, the system will be adding balances for you automatically, reducing the chance of mistake. And if there is a mistake, then the detail information by invoice will allow you to track down that mistake much more conveniently than if you had to go through the various source documents that you combined into a single number with the first method.

As with other conversions to the BPI System, if you have a current method of handling Accounts Payable it would wise be to keep this method running in parallel for approximately 30 days. Parallel operation is more work and it does involve more money, but in the long run it's cheap insurance to make sure that you've properly initialized a new system and you're operating it properly.

INVOICE ENTRY

To enter accounts payable transactions into the system, you must convert into vouchers the invoices presented to you by vendors. If you'll remember, invoices can be combined onto one voucher. Another thing which can be done is breaking up a single invoice into several vouchers. You would do this if you wanted to make partial payments on the invoice. You could give each voucher a different due date; the system would track when these partial payments are due. Naturally, the total of all the vouchers for a single invoice should equal the total for the invoice.

For the Accounts Payable System, the command to enter the voucher register is used as the primary command for the input of new data to the system. The voucher register is organized around the vendor. You can have two types of vendors. The first is a vendor with whom you deal with on a regular basis, say at least once a month. For this type of vendor, you can have a custom screen designed as you create your vendor file. Each vendor of course, should have, a vendor number.

The other type of vendor is known in the BPI System as a *casual vendor*. This vendor may or may not be relaxed, but in this case "casual" simply means that this is not some person that you are doing regular business with. You differentiate between the two when entering the vouchers, either putting the vendor number in or the vendor name. Casual vendors are those which are not a part of your regular vendor file.

When you enter the invoice vendor name or vendor number, BPI is intelligent enough to understand the difference. For instance, if you put a 1 in Vendor Name, BPI understands that you want vendor number one. If you enter something like "1-Stop Shopping Center," BPI will know that the number one in "1-Stop" is part of a name for a casual vendor.

With your normal vendors BPI doesn't require an address; with your casual vendors you'll be asked to input an address. The voucher number itself is automatically assigned by the system, and you can even enter individual invoices for the next payment period, if operating under the accrual method of accounting. For instance, if you were entering payments for the month of June, you could also enter an invoice due in July. To do this, you simply change the voucher number, which, as we discussed earlier, is based on the accounting period.

With the creation of vouchers you can actually do three separate transactions. These are:

1. Entering a regular invoice

2. Creating a credit memo
3. Creating a deduction memo

A *regular invoice* is something that you owe to the vendor for services or goods provided to your company. A *credit memo* is some refund the vendor has given to you for whatever reason. A *deduction memo* is an action that you're taking on your own. This may be because you received some defective merchandise from the vendor; rather than pay him the total invoice amount and then receive a credit from the vendor, you made a decision to avoid a double transaction and simply deduct the amount from the original total due.

Automatic Entries

The Accounts Payable System also has the ability to handle automatic entries. Automatic entries create automatic vouchers, which are payments that you regularly make during each period. This could be something like your rent or a regular loan payment. Automatic entries are a convenient way for handling monthly payments.

To Pay or Not to Pay

With the Accounts Payable System you can put particular vouchers on hold if there's a dispute over that particular bill, or you could even delete a voucher for whatever reason. You can also selectively pay vouchers, or have the system automatically pay vouchers by due date.

PAYING THE BILLS

System-Printed Checks

As vouchers come due, you can have the system produce and print checks for you. This is a process that you can control completely, deciding which vouchers to pay and accommodating handwritten checks, too. With the system-printed checks, you can print your company name and/or the check number if you wish. With some versions of BPI, you can also print your return address.

Handwritten Checks

The Accounts Payable System also has provisions for recording manual checks. These may be checks for bills which you did not enter as a voucher, or they may be checks for bills you have previously entered. This gives you a great deal of flexibility in handling your payments. Items for which you write a check that were not previously entered to the Accounts Payable System are referred to as *cash payments*. Handwritten checks for bills previously entered to the Accounts Payable System are referred to as *on-account payments*.

Multiple Checkbooks

The BPI Account Payable System can keep track of up to ten checking accounts. BPI recommends that you use different checkbooks for your manual and machine-

generated checks, so the check numbers can differ. These checkbooks can be against the same checking account, however. Your manual checks may be numbered from 1 to 5000, for instance, and your computer-generated checks can be from 5001 to 9999. In this way you can look at a check number and know immediately if it was a manually written check or a system generated check. In addition, the system can then keep track of check numbers for you. If your books are set up to handle different checking accounts by unique cash account numbers, the BPI Accounts Payable System can handle this well.

ACCOUNTS PAYABLE SYSTEM REPORTS

The accounts payable system provides you with a variety of listings and reports. These include:

- Aged accounts payable
- Batch proof
- Cash requirements
- Check selection
- Checks
- Check register
- Monthly check register
- General journal
- Accounts payable general ledger
- Vendor ledger
- Accounts payable distribution
- Vendor query
- Vendor analysis
- Vendor ledger card
- Vendor registers
- Current voucher register
- Open voucher register
- Held voucher register
- Deleted voucher register
- Next period's voucher register
- Paid voucher register
- Listing of the accounts payable general ledger
- Listing of vendors in numeric order
- Listing of vendors in alphabetic order
- Listing of vendor's schedule
- Listing of automatic entries
- Mailing labels
- File cards

NICE TOUCHES

The BPI System produces several nice things to help you operate the system more efficiently. One thing is a ledger card by vendor, which can be printed out and kept on file to handle vendor inquiries. Figure 13-7 shows the kind of useful information

CORNER HOME IMPROVEMENT CENTER

AS OF
01/01/86

VENDOR ANALYSIS

PAGE 1

9	45	DUE DAYS	2,592.73	YTD PURCHASES
TOP-FLITE BUILDING SUP		DISC.DAYS	2,592.73	YTD PAYMENTS
7543 WEST HIGHWAY 451	.00	DISCOUNT %	322.73	HIGH BALANCE
NEW YORK, NY 10109	5013	G/L ACCOUNT 1	2	# CHECKS YTD
		G/L ACCOUNT 2	1355	LAST CHECK #
PHONE NO.212/250-1846		G/L ACCOUNT 3	06/02/85	CHECK DATE
BALANCE .00	1	# OF TRANSAC	322.73	CHECK AMOUNT

Fig. 13-7. Vendor analysis, a very useful feature of the Accounts Payable System, is not available on the General Accounting System. This illustrates the type of analysis available with the AP System. You'll notice the last column carries year-to-date information on purchases and payments.

available by vendor with this system. This ability to get information on hard copy or ledger cards means that vendor inquiries can be handled without having a computer turned on or without having the computer operate the BPI System. For businesses using the computer for more than just an accounting function, this can be very helpful.

Another nifty feature of BPI is the ability to print vendor mailing labels. These mailing labels can be done for all vendors or for selective vendors. If mailing labels are done for all vendors, then the labels are sorted alphabetically by vendor name. You can also choose selective vendors to have labels printed by vendor number.

The mailing labels are produced on a special form ("one-across" mailing labels, a common type of label stock found at computer stores and computer supply houses). The BPI System also allows you to print an alignment pattern to make sure the form is aligned properly in the printer. Printing all the vendors is nice if you're doing a mass mailing.

You also can selectively print out labels for vendors who frequently need labels and keep them on file, since it's inefficient to keep swapping special forms in and out of your printer just to produce one or two labels. The other thing is to produce all the labels you might need in batches, say on the 15th and 30th of the month. The trade-off here is between installing and aligning the special form on your printer or storing some extra labels in a file cabinet.

BPI will also produce file cards for your vendors, giving the vendor number, name, address, and telephone number. These file cards will be sorted automatically for you by vendor name. This is a nice feature, producing Rolodex-like file cards to be used by buyers or expeditors, so they know which vendor to contact. As vendors are deleted or new vendors are added, it's a very simple matter to print up an entirely new, completely alphabetized deck of cards.

Chapter 14

The BPI Payroll System

Many companies consider their employees to be their most valuable asset. Paradoxically, many companies also consider the accounting task involved with the payroll for these employees one of their biggest headaches. This is not a case of a company coveting the money paid to employees for their labor: it is more a realization that there are so many city, county, state, and federal laws and taxes involved with the payroll process that filling out a simple paycheck can be a process involving several calculations and the retention of a variety of records.

Because of this situation, payroll services are one of the most common and frequently used accounting services. Large banks, other financial institutions, accounting firms, and small- to medium-sized accounting practices all usually offer a payroll service to their customers. The quality, timeliness, and accuracy of payroll services can vary widely. Some companies have been known to change their payroll services as many as three times in a year, while others have stuck with the same service for decades.

One alternative to a payroll service is to calculate payroll by hand. If you have more than a few employees, however, you begin to find out why automated payroll services are so popular. Federal, state, and other laws seem to be constantly changing with respect to income and other taxes on payroll. Sick pay, vacation pay, and commission pay plans often vary and must be handled differently, depending on the state and the circumstances of the individual employee. Furthermore the requirement for accurate record keeping on things like employee withholding is absolute; you must supply forms or deposits on specific deadlines. Just as important, the time involved for calculating payroll for more than a few employees can be extremely burdensome.

BPI Systems

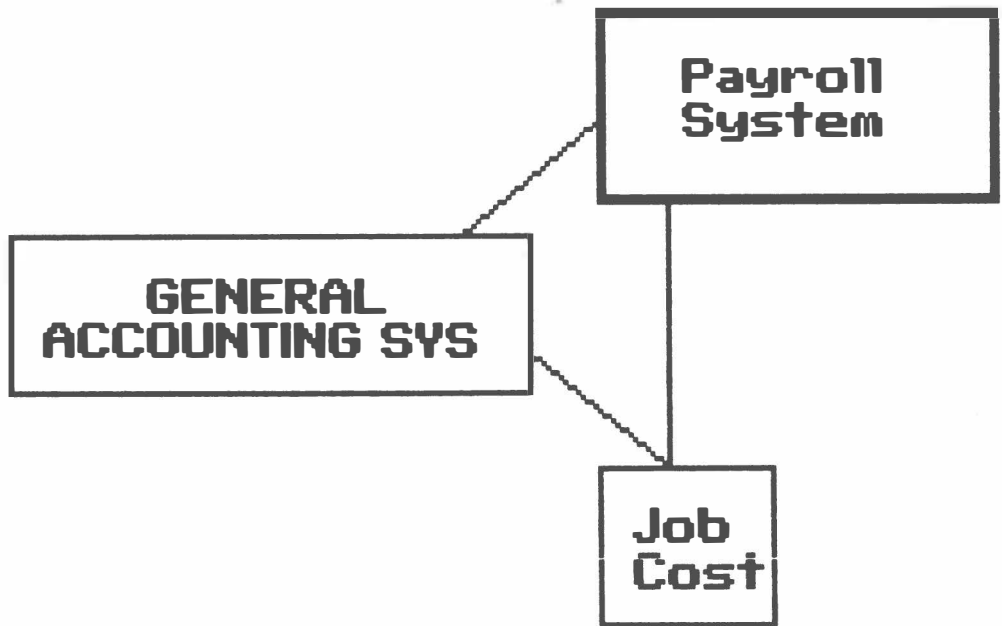


Fig. 14-1. The Payroll System provides increased flexibility and more comprehensive reports than the payroll module found in the General Accounting System. It will also interface with the General Accounting System and the Job Cost System, as illustrated here.

A third alternative to payroll services and manual calculation of payroll is a system like the BPI Payroll System.

SYSTEM CHARACTERISTICS

The BPI Payroll System has a flexible design, reasonably large capacity, fast data entry, and the availability of yearly updates to state and local payroll tax percentages. In addition, it functions and operates very much like all the other BPI Systems, reducing the amount of learning time necessary for implementing the BPI Payroll package if you are operating other modules of the BPI Accounting System.

BPI Payroll will also integrate directly with the BPI Job Cost and General Accounting System to transfer information to the General Ledger and Job Cost records.

Flexibility. The BPI System allows you three main methods of compensating employees: salaried, hourly, or commission. For hourly employees you can have up to three different rates per employee. This allows for the convenient handling of overtime or special pay rates for hourly employees. For commission employees there are four separate methods for calculating commissions. You also can have different

employees on different pay plans and pay periods—all within the same set of payroll records.

For all employees the BPI System can handle employees joining an organization in the middle of an employment pay period. In addition, the BPI System allows four pay periods (weekly, biweekly, semimonthly, and monthly), and can handle sick and vacation pay. Travel advances and expense checks can also be produced using the BPI Payroll System. This system can also handle special deductions for things like individual retirement accounts (IRAs), employee contributions to medical funds, charitable deductions, and similar types of activity.

Fast Data Entry. As with other modules in the BPI System, special entry screens speed up the accounting process. BPI will know to automatically make a double entry to appropriate accounts, based on the information you provide on custom screens.

Up to nine deductions per each employee can be specified. Three of these deductions are automatic. They're for federal income tax withholding, FICA, and state income tax. In addition, you can create up to 20 optional deductions in your Payroll System, and you can assign any six of these to a single employee.

The system will also process tips for employees, keeping track of appropriate deductions and tips deemed to be wages. Payroll checks, W-2 forms, employer 941 forms, and a variety of reports regarding employees, terminated employees, and pay changes also can be produced.

```
BPI Systems, Inc.  
Payroll - Version 1.10  
Menu 1 - Data Entry and Maintenance  
  
1 Run Queue  
3 Change/Exit BPI System  
5 Change Menu  
  
11 Enter Payroll  
12 Enter Wage Distribution  
13 Enter General Journal  
  
71 Create Company  
72 Edit Accounts  
  
2 Erase Queue  
4 Enter Company Code and Dates  
6 Print on Screen/ Printer  
  
21 Print Checks  
22 Print W2's  
  
73 Print Schedules  
74 Change Company Code  
  
Data Drive : B  
Company Code: CORNER  
Password : XXXXXX  
  
As-Of Date: 01/01/86  
Today's Date: 01/01/86  
  
Command Queue: Empty  
  
Enter Command Number ==>
```

Fig. 14-2. Access to most of the data entry features in the Payroll System, as well as the creation of the system, uses menu 1. The system allows multiple employees in multiple states and multiple pay plans.

Calculations. Calculations for the BPI Payroll System for most taxes and circumstances are handled automatically. All 50 states are handled by the Payroll System, as well as the District of Columbia (for resident and nonresident workers).

Special county and city taxes are also handled. These include California State Disability Insurance, Maryland county for resident and nonresident individuals, Michigan cities, Indiana counties, and New York City taxes (both resident and nonresident). Some special categories of withholding are also calculated for you. These include New Jersey-New York, New Jersey-Pennsylvania, and Connecticut-New York.

When you buy the system, BPI provides you with an automatic update of all these tax tables. If you send in your registration card upon purchase of the system, this update will be sent to you free. After this free initial update you can subscribe to the BPI Payroll update service. This service provides new tax tables to keep your system current with state and federal tax changes.

Capacity. As with all BPI Systems, the capacity of the Payroll System depends on which computer and which version of the BPI System you're using. The IBM 1.1 Version of the BPI Payroll System has the capacity for at least 230 employees on a floppy disk and up to 6000 employees on a fixed disk. This version of the system also allows up to 150 payroll General Ledger accounts and up to 250 general journal entries during any pay period.

Calculating Payroll

If you've been doing your payroll manually, you've probably been using wage bracket tables for calculating federal income tax withholding. There is an alternative method approved by the Internal Revenue Service (IRS) for federal withholding calculations. This method is based on annualized wages and uses a percentage method withholding table. This is described in detail by Circular E, published by the IRS. This technique is the one used by the BPI Payroll System. It does result in some slight differences from techniques using wage bracket tables, and BPI suggests that you notify your employees of this change. The calculations for state tax vary from state to state; BPI provides information in the BPI Payroll manual on how this calculation is performed on a state-by-state or district-by-district basis.

Pay Periods Handled

As mentioned, BPI has four pay periods which can be handled by the Payroll System: weekly, biweekly, semimonthly, and monthly. Weekly, as the name implies, means that you pay your employees once every week. Biweekly means that the pay period is every two weeks. Semimonthly means that the payment comes twice a month. Usually, this is on the 1st and the 15th of a month, or the 15th and the last day of the month. With the monthly pay period, a payroll check can be produced once a month, usually (but not always) on the first or last day of the month.

An important point to note is that you can have employees on different pay periods and on a different pay plan all within the same set of records for your company. In addition, since BPI will automatically handle the requirements for different states, counties, and other political entities, it is possible to handle a complex and nationwide payroll situation using the BPI System.

Commission Plans

Commission pay plans tend to be varied and sometimes complicated. With the BPI Payroll System a variety of pay methods are handled. These include three automatic methods for handling commissions, and a fourth choice that allows you to calculate commissions manually, based on whatever other plan you might have.

Base Plus Commission. The first method for calculating commissions is a base pay plus percentage of sales. With this method the employee receives a set base pay regardless of the amount of sales, plus a percentage of actual sales made. This percentage of sales made can be based on a fixed percentage basis or on a graduated scale. A fixed percentage is self-explanatory. If you're offering a base salary plus 5 percent commission, for instance, you would simply provide the base plus 5 percent of all sales made.

The graduated scale is a little trickier. For example, you might offer a 5 percent commission on all sales up to \$1000 and 7 1/2 percent on all sales over that amount. This provides an incentive to employees to increase sales amounts. On the IBM and other versions of BPI Payroll you can have up to six ranges in this graduated scale. You do not have to use all six, but this does provide a great deal of flexibility on how you want to set your graduated scales for commission.

Base Plus Piece Rate. The second allowable commission plan is a base pay plus a piece rate. As with the previous method, the employee is guaranteed a certain wage as a base pay. In addition, you also pay a specific amount for each unit sold. With BPI you can specify up to four different types of units and each of these units can have a different amount of commission.

Draw Against Commission. The third method is a draw against commission. In this method the employee has a draw guaranteed every pay period against potential commissions. If the employee does not sell enough in the pay period to exceed the amount of this draw, then the draw will still be paid.

For instance, suppose an employee received a 10 percent commission on sales and was guaranteed a \$500 draw. This means that the employee must sell \$5000 every pay period in order to earn enough commission to offset the draw. If in one pay period the employee only sold \$3000 worth of merchandise, then the employee would still be paid the \$500 draw, even though this exceeds the commission amount by \$200. If the employee sells over \$5000, the employee would receive the 10 percent commission on that total sales amount (i.e. If the employee sold \$6000 in one pay period, the employee would receive \$600.)

The BPI System does not keep track of any amounts paid to the employee in excess of the minimum draw guaranteed to the company. In other words, if in one pay period the employee had been paid \$200 more than that earned by the straight commission, in the next pay period that \$200 would not be deducted from the calculated draw against commissions even if that calculated draw was over \$500.

Other Plans. The fourth method is simply labeled "other techniques." This is a catchall that allows companies to calculate commissions on almost any basis they choose. This calculation, however, must be done manually. After the manual calculation of commission, you simply enter the amount of the commission; the BPI System then calculates the various deductions applicable.

Employee Numbers

Because of its greater capacity, the Payroll System has a different numbering scheme than the General Accounting System for employees. With the Payroll System, employees are assigned a number from 101 to 9999.

These employee numbers are internal control numbers, and if you intend to use the Payroll System in conjunction with the General Accounting System, you will not have to establish a payroll ledger or employee numbers in the General Accounting System. The various registers, ledgers, and reports available from the Payroll System will replace the payroll ledger and reports available in the General Accounting System.

CONVERSION TO THE SYSTEM

The ideal time for conversion to the BPI Payroll System is at the start of a new calendar year. In this way, the cumulative totals for the various deductions will be maintained by the system automatically. Obviously, most businesses will not wait until once a year to implement the BPI Payroll System, so the second-best time to implement the system is at any pay period end. This is because you want to be able to interface your system to the General Accounting System (assuming you're not using the Payroll System on a stand-alone basis) and starting after a month-end cutoff simply keeps the conversion a lot cleaner.

BPI Systems, Inc.
Payroll - Version 1.10
Menu 2 - Posting and Printing

1 Run Queue	2 Erase Queue
3 Change/Exit BPI System	4 Enter Company Code and Dates
5 Change Menu	6 Print on Screen/ Printer
31 Print Payroll Register	41 Process End-of-Pay-Period
32 Print Check Register	42 Process End-of-Month
33 Print General Journal	43 Process End-of-Quarter
34 Print Earnings Records	44 Process End-of-Fourth-Quarter
35 Print Tax Information	
36 Print Departmental Reports	
37 Print Audit Report	51 Post P/R General Ledger
38 Print Quarterly Wage Statement	52 Transfer To G/A System

Data Drive : B
Company Code: CORNER
Password : XXXXXX

As-Of Date: 01/01/86
Today's Date: 01/01/86

Command Queue: Empty
Enter Command Number ==>

Fig. 14-3. Access to most reports in the Payroll System is gained through this menu. You'll note that menu choice number 52 allows the transfer of payroll information of the General Accounting System.

PAYROLL SYSTEM REPORTS

Listed below are the reports available with the BPI Payroll System:

- Payroll check
- Expense check
- W-2 payroll form
- Payroll register
- Check register
- Payroll general ledger
- Earnings records
- Tax information
- Employees list by department
- Payroll register summary by department
- Earnings record summary by department
- Average hourly rate by department
- Current hours and total pay by department
- Year-to-date hour and total pay by department
- Pay information by department
- Employee pay analysis by department
- Audit report
- Quarterly wage statement by state
- Employee lists by employee number or name
- Employee wage distribution prompts by employee name
- Payroll general ledger accounts
- Deduction and commission schedules

INSTALLING THE SYSTEM

The installation of the Payroll System follows a familiar pattern followed by other BPI Systems. The most obvious similarity is the establishment of a company code and payroll general ledger accounts. The company code, as with all BPI Systems, consists of letters, numbers, and hyphens. An interesting aspect of the BPI Payroll System is that the company code used for the Payroll System does not necessarily have to match the company code used in the General Accounting or Job Cost systems. As a general rule, however, I would suggest keeping the same company code for all modules of BPI being used by a specific company.

The payroll general ledger should include all the accounts that are affected by your payroll transactions. This may include some expense accounts if you're paying travel advances and similar expenses through the Payroll System. The numbering of payroll general ledger accounts follows the same scheme described for the General Accounting System. This includes the numbering restrictions for account types, as well as the provision for listing these accounts in numeric order.

If you're using BPI Payroll with General Accounting, it's a good practice to compare the accounts in the Payroll general ledger and the General Accounting ledger to make sure there's a one-for-one equivalency on the account numbers being affected by your Payroll System. If this equivalency does not exist, the system will report to you an error when it tries to transfer these transactions to the General Accounting

System. It is obviously a lot cleaner to take a few moments to make certain that the account numbers agree between the two systems, and to avoid this kind of error in the first place.

Mandatory Accounts

If you want to interface payroll with the General Accounting System, you must make sure that the account numbers are the same in the two system. The payroll general ledger can have up to 250 accounts, six of which are mandatory. These six accounts are cash on deposit, FICA withholding, federal tax withholding, earned income credit, state withholding, and salaries and wages.

Even if you don't use state withholding or earned income credit accounts for your payroll, the BPI System still requires you to create them. If these accounts have no activity, however, they will not appear on any of your reports, except for the payroll general ledger.

Company Configuration

The company configuration for the Payroll System is also very similar to that involved with the General Accounting System. Some extra information is required in order to suit the needs of the Payroll System. One such piece of information is your Federal ID number. This is the employer number assigned by the federal government when most businesses start operations. This 12 digit number is required on things like federal form 941 and other similar forms.

In addition, the BPI System also needs the annual number of regular hours worked by employees, both salaried and commission. This information does not appear on any checks to employees, but it is used internally by the system to calculate various reports. For a company using a 40-hour work week, the default number for this is 2080. For companies that are on a 37 1/2-hour work week, the default number is 1950. To calculate this number, multiply the number of hours worked per week by the number of weeks worked per year.

BPI allows you to optionally have the pay period dates printed on checks. The issue date of the check is always printed, but you may or may not want to have the pay period also listed on the check. If you have preprinted checks there is no need for the company name to be printed on checks. On the other hand, if you do not have preprinted checks with your company name, the BPI System will put the company name (and if you specify it) the address on the check. The same is true with check numbers, depending on whether or not the check number is preprinted.

In the company configuration you're asked questions involving whether or not you want tips included in payroll calculations. This is something that usually involves consultation with an accounting professional if you're not certain about whether or not they should be included in calculations. During your consultation with your accountant you should also get information on the current federal minimum hourly wage, and the weekly hours used to calculate the federal base when processing tips. This information does not appear on input screens, but it is used in various calculations.

Deductions

You can create up to 20 special deductions for your company, and you can choose

up to six of these deductions for payroll screens for each employee. If you have no deductions other than the standards ones for FICA and federal and state income withholding, you don't have to create special deductions.

When creating the special deductions, you can specify a description that will appear as a prompt on an employee's screen. This should be a descriptive explanation of the deduction. BPI has 10 standard deduction methods available to you for each of these 20 deductions you're creating. These ten methods are:

CORNER HOME IMPROVEMENT CENTER		01/01/86-01/01/86	CHECK NO. 530
DOE, JOHN Q		EMP. NO. 101	999-99-9999
CURRENT PAY PERIOD		YEAR-TO-DATE	
GROSS PAY	****	****	
SICK PAY	****	****	
VACATION PAY	****	****	
EXPENSE REIMB.	****	****	
EARNED INC.CR.	****	****	
REPORTED TIPS	****	****	
FICA	****	****	
F.I.T.	****	****	
S.I.T.	****	****	
NET PAY		****	****
FICA NOT WITHHELD		****	****
CORNER HOME IMPROVEMENT CENTER			530

		01/01/86	\$*****
JOHN Q DOE 1234 FIFTH STREET ANYTOWN, USA			
		VOID - VOID	

Fig. 14-4. This is a sample payroll check, as produced by the system. A complete accounting of the amount to pay and the deductions is provided on the stub of the check.

1. Flat rate
2. Percentage of total pay
3. Percentage of total pay plus tips
4. Dollar amount times hours worked
5. Michigan cities tax
6. Indiana county adjusted tax
7. Maryland county tax
8. New York City tax
9. California State Disability Insurance
10. IRA account

Flat Rate. The flat rate is interesting because it allows you to not only deduct from an employee's pay for each period, but you can also add to an employee's pay. A flat rate is set up as a general type of deduction on the company worksheet. Then, as you establish each employee's record you enter the specific amount to add or subtract for that employee.

To subtract from an employee is pretty straightforward, because you simply enter an amount when you create the employee record. You must also set a ceiling on the total withholding amount for the year under this deduction. The system will stop withholding for this deduction when it reaches the ceiling. This helps prevent errors in the amount that you withhold for the employee. You can, override the ceiling if you have to, and you can also leave the ceiling blank if you do not want to set a ceiling for withholding.

If you want to add to an employee's salary (which is a non-taxable reimbursement to an employee that is not subject to withholding taxes), you have to enter the amount you want to add as a negative number. This sounds a little confusing, but there's a logic to it with the BPI System, since the amounts that you are deducting from the employee are entered as positive numbers. If you are giving employees non-taxable reimbursements not subject to withholding taxes, you might want to touch base with your accounting professional to make sure it is being handled in the proper manner.

Percentage of Total Pay. This method takes a straight percentage of the employee's gross pay, including regular pay, sick pay, and vacation pay. This method requires a ceiling for the total withholding amount for the year under this deduction. As with the flat rate, you can override this ceiling if necessary. You can also leave the ceiling blank if you do not want to set a ceiling for withholding.

Percentage of Total Pay Plus Tips. This withholds a percentage of the total pay (regular pay, vacation pay, and sick pay) plus any reported tips. As with the other methods, a ceiling must be set for withholding for the year with this method, and it can be overridden. You can also leave the ceiling blank if you do not want to set a ceiling for withholding.

Dollar Amount Times Hours Worked. This withholds a specified amount multiplied by the number of hours worked by the employee. Once again, a ceiling should be set. If you do not want to enter a ceiling, you can simply leave this blank.

Michigan Cities Tax. This withholds a percentage of the net tax payable. This is specifically for withholding city taxes in the state of Michigan and would not be applicable in other places.

Indiana County Adjusted Tax. This withholds a percentage of net tax payable. This is specifically for withholding county taxes in the state of Indiana and would not be applicable in other places.

Maryland County Tax. This withholds the correct Maryland county tax for both residents and nonresidents, and would not be applicable in other places.

New York City Tax. This withholds the proper city tax for New York for both residents and nonresidents. This would not be applicable for other parts of the country.

California State Disability Insurance. This withholds a fixed percentage of an employee's gross wages. This is specifically for the mandatory disability taxes for the state of California and will not apply in other areas.

IRA Account. If you have an employer sponsored contribution to an employee's individual retirement account (IRA), this deduction will handle the contribution as if it were a deduction, in order to withhold FICA from this payment. Other withholding is calculated on gross pay excluding the IRA amount.

Individual Employee Information

The BPI Payroll System maintains a great deal of information about individual employees. This information not only includes the new employee number (101 to 9999), but also information on the pay period of the employee (weekly, biweekly, semimonthly, or monthly), as well as name, address, social security number, date of hire, date of termination (if terminated), home phone number, and department number.

The system also has a current status code. If an employee leaves or is terminated, the status code notes that the employee is no longer active. Records for that employee will no longer appear on the computer screen for payroll processing. However, the information on past payroll for this employee is maintained in the system until you execute an end-of-fourth-quarter command. This allows you to print the W-2 forms for the terminated employee at the end of the year. After processing the end-of-fourth-quarter command, the information for any terminated employees is deleted from the records.

In addition to personal information about the employee, a great deal of information is required regarding taxes. BPI's Payroll instructions covers what this information is, and the instructions provide you with a worksheet for employees to fill out this tax information. As with other BPI worksheets, you should make copies of the worksheet. Obviously, you're going to need at least one worksheet per employee for this tax information.

STARTING AND USING THE SYSTEM

After you've created the company configuration and the individual employee records, then you can start your payroll system by entering employee history. If you are initializing the system at any time other than the start of a new calendar year or for brand-new employees, you should have withholding information for these employees entered to the system.

This employee historical information must be entered prior to the first check being processed. This is usually entered with an employee history command. With the IBM version of BPI this employee history command is very unforgiving: you cannot edit

this history after you have processed the payroll for employees. This means that after entering the information, and prior to doing any processing, each figure should be double-checked and carefully scrutinized because accuracy is mandatory. If an error is found it can be corrected with general journal entries.

Editing Accounts

Editing of the General Ledger Accounts is a bit more liberal. You should add or delete payroll general ledger accounts only at the end of the pay period after posting and end of period processing, but you can change the name of the general ledger accounts at any time.

To change the number of a general ledger accounts you must first add the new general ledger account, transfer the balance in the old account to this new account, and then delete the old account. If you happen to be changing account numbers for some reason and you're interfacing to other BPI Systems, you should also remember to check the general ledgers for these other systems to make sure that corresponding changes are made.

The company configuration can also be edited, but only after ending a pay period. This restriction applies to the accounts in the company configuration. Other information in the company configuration, such as company name and password, can be changed at any time.

Deductions and commissions can be edited after ending pay periods, but you should remember that deductions and commissions are also related to the information that you've placed into individual employee records. You should review carefully the employee records to make sure that any changes to deductions and commissions have the desired effect. You can edit most information for employees, but you cannot delete an employee record. This is because the system must know the totals for all wages and withholding, and you must print Form W-2 for all employees. If any employee happens to be terminated, change the employee's status; then, when you execute the end-of-fourth-quarter, the system will automatically eliminate the employee record for you.

System Operation

The operation of the system, as with many BPI Systems, involves special screens. The system starts out by loading in the various tax tables needed to calculate withholding and other deductions. You are then offered three choices on how you want processing to proceed.

The first choice is manual processing. This allows you to examine each employee's pay information individually, and either change or approve this information prior to the continuation of processing.

The second choice is automatic processing. With automatic processing, the system will process payroll without pausing to let you examine an individual employee. For those employees who work nonstandard hours or who have commissions, the system will display these employees to you one at a time so you can enter the hours or commissions for the calculation for the current pay period.

The third method is select processing. With select processing you give the system an employee number and the employees pay screen will appear for individual processing.

Hourly Employees

When processing hourly employees, you can specify the hours in one of three pay brackets. These three pay brackets can handle things like regular time, overtime, and holiday time. The system then calculates the various deductions, as well as the gross pay which results from these entries.

When you approve the entry, the individual record is written to the disk drive. As with other BPI Systems, the payroll system is disk-intensive; this provides some backup to you because the calculated payroll information is saved to the disk after each approved transaction.

When entering hours to the system, you use a hundredths method for calculating partial hours. For instance, 1.50 is one and one-half hours 1.25 is one and one-quarter hours, etc. As with the entry to other BPI screens, dollar amounts are shown with zeros. For instance, 1600 would be \$16. In addition, hours are shown with zeros, so for one and one-half hours you would enter 150.

SUMMARY

The BPI Payroll System features flexibility and relatively large capacity. It handles most of the types of deductions encountered by companies operating in the United States. It also has special provisions for unusual deductions involving counties, cities, and other political subdivisions. All in all, the BPI Payroll Accounting System can be a valuable time-saver for those companies with multiple employees or employees in various states.

Chapter 15

The BPI Inventory Control System

For many businesses, the inventory of the business can be between 50 percent and 90 percent of the total financial assets owned by the business. If this asset is not being put to productive use, it can spell the success or failure of the business. For this reason the proper control of inventory is a major concern.

When you look at the inventory owned by your business, instead of seeing pieces of merchandise or stocking units, what you should see are stacks of dollar bills. If these dollar bills aren't being converted into more dollar bills at the time of the sale, then all the money you have tied up in inventory is not being put to productive use. You might have been better off putting that money in a bank account, where you would be receiving a guaranteed interest rate.

CHARACTERISTICS OF POOR INVENTORY CONTROL

If your business is suffering from poor inventory control you usually have two symptoms which may seem somewhat paradoxical:

1. You've got too many items which aren't selling
2. You don't have enough of items which are selling

Part 1 is pretty easy to understand. If you've stocked the wrong items, they're just sitting in your inventory, taking up space, and tying up your money. These are items no one wants to purchase from you, so you can't effectively transform your investment of inventory into sales and profit.

Eventually, items start getting old and stale sitting on shelves. For seasonal items, this can happen in a few months. For fad items it can happen in a few weeks. Even items which aren't affected by seasons, fads, or fashions eventually start looking old and faded and harder to sell. Some items can sit around for years. Even if you make a respectable profit margin on the item when you finally do sell it, you might find out that you were better off not buying the item in the first place, and you would have made more profit by putting the money into some kind of investment or bank account.

The second symptom of a company suffering from poor inventory control is that it seems to always be out of items which it can sell. Customers come in and ask for items, and you seem to be constantly running out of these items when you try to fill the order. This not only takes money out of your pocket, it also does a very poor customer relations job for your business. Unless you're in the enviable position of having a monopoly on the supply of certain items in an area, you'll see customers going elsewhere to purchase their merchandise.

The usual reason you're running out of the fast-moving items is that it's hard to control your various stocking levels. You're not reordering the item in time to receive new supplies of the item before you find an entire rack or shelf empty. In addition, having poor inventory control means that so much of your money is tied up in things which aren't moving, you find it difficult to finance purchases of the items that are. More than one company, big and small, has been driven to bankruptcy because of this exact situation.

There's no easy cure or preventive measure for this, except attention to detail and hard work. If you simply purchase a lot of everything so you don't run out of the hot items, you'll soon find yourself with enormous inventories of things that aren't moving. This is very poor business strategy and a very dangerous financial situation.

Unless you're dealing with a very limited number of items in stock, or unless you're an extremely unusual person, if you think that you can control inventory simply from the knowledge in your head, then this kind of attitude will fail too. People generally have a limited retention span, and they can only remember the sales pattern for 10, 20, or perhaps even 50 items at a time. But typical retail establishments may stock hundreds or thousands of items.

Even if you can remember which items are moving, it's very difficult to remember how items are trending (i.e., how their sales are going up or down from month to month). With trending items it is very easy to make ordering mistakes if you don't understand what the trend is. For an item where sales are increasing from month to month, you'll probably be under-ordering because you'll be looking at the previous sales levels, which are lower than what the sales will be in upcoming months. For items where sales trends are declining, your orders are probably going to be too high because you'll be looking at previous sales months where sales were higher than they are going to be in the future.

In the first case (increasing trend items) you don't order enough. In the second case (declining trend items) you order too much. If you think about the discussion in the beginning of this chapter on the characteristics of a poorly managed inventory, you can see that relying on instinct and memory is not necessarily the best strategy for inventory control. It is a good strategy for picking new items to stock, based on the knowledge of your business and your customers. It is not a good strategy for controlling hundreds or thousands of these items after you've picked them.

MANUAL SYSTEMS

There are a great many manual inventory control systems. Most involve some kind of ledger card or inventory control card for recording sales, back orders, and items on order. If you use these systems diligently and faithfully, they do a pretty fair job of helping you control your inventory. ¶

The major problem with these systems is that they involve enormous amounts of work. In addition, at any given time it's very difficult to get a total picture of what your inventory situation is, because you have to go through and add up ledger cards to see totals for your inventory value, what's on order, what's on back order, and other information found on the card. Manual inventory systems usually involve many hours of tedious work.

BPI INVENTORY CONTROL

The BPI Inventory Control System addresses many, although by no means all of the problems inherent in controlling your inventory. As with other BPI Accounting Systems, the BPI Inventory Control System can be used as a stand-alone system or can be integrated with the General Accounting System, as well as the Accounts Receivable System, and/or the Accounts Payable System (Fig. 15-1).

This particular module has a strong accounting orientation. This means that the

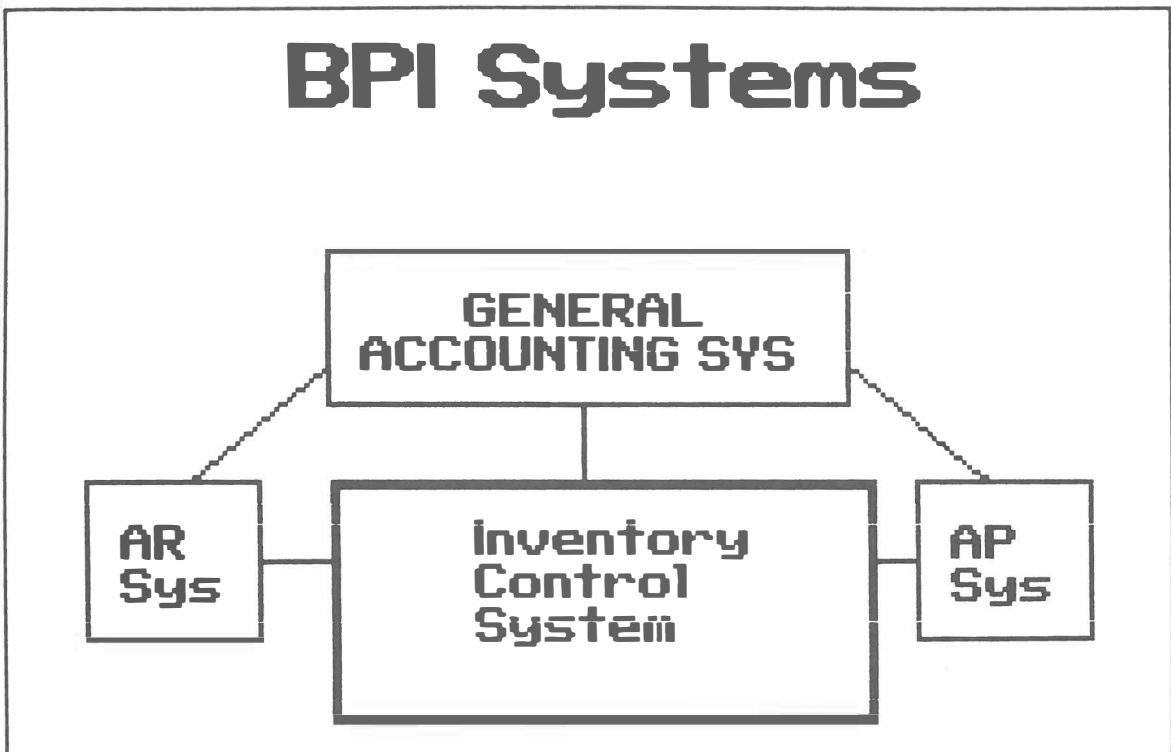


Fig. 15-1. The Inventory Control System can act as a stand-alone system or interface with the General Accounting System, the Accounts Receivable System module, or the Accounts Payable System module.

financial control of inventory is handled quite comprehensively, but not as much attention is paid to forecasting, ordering, or the physical maintenance of the inventory. BPI's inventory control does, however, give you assistance in the ordering of merchandise and the creation of purchase orders. It helps you maintain a proper merchandise receiving system, it allows you to make adjustments to inventory, and provides sales analysis by item number, category, or department. BPI also allows the cost evaluation of your inventory to be done by FIFO (first-in, first-out), LIFO (last-in, first-out), or average method. This last feature can have specific tax advantages to you, depending on the nature of your business and the value of your inventory.

Average, FIFO, LIFO

For most businesses the cost of merchandise changes over time. The three methods of inventory valuation available with the BPI Inventory System recognizes this fact.

The *average method*, as the name implies, averages out the cost of each item based on the number of items purchased and the cost of the item at the time of purchase. This average figure is what is used when deducting inventory value at the time of a sale.

The first-in, first-out method (FIFO) is a slightly different way of looking at inventory. What FIFO says is that the oldest item received by your company is the item that you will sell first. In other words, the first item into your inventory is the first item out of your inventory. If you have identical items sitting on the shelf, you don't actually have to keep track of which is the first item purchased and which is the last item purchased, moving them out of inventory in sequence.

For accounting purposes, however, the prices of these items can be kept separate; as one of these items is sold, the cost of goods sold on your books will be the oldest price. If this happens to be an item where the prices have been increasing or decreasing, you can see that this method would change the amount of profit credited to your company. Usually this will have a different effect to your income statements than using the average method.

The last method allowed by BPI Accounting is last-in, first-out (LIFO). This is the exact opposite of the FIFO method. What LIFO says is that you sell the freshest or newest item to the customer, and this newest price is deducted from the books. As you continue selling items, previous purchase prices start applying so the system must keep track of various cost prices and quantities, to properly change the cost price as new stock is exhausted.

This sounds complicated, of course, but the BPI System will handle all three of these methods for you automatically. Which method is best for you to use depends on the nature of your business and the nature of prices for your business. This is another area where your accounting professional should be able to help you. If you're in the rare business where prices don't fluctuate very much, then simply use the average method.

System Setup

As with every BPI accounting module, you should first check the characteristics of the system to see if it meets your needs, as well as the capacity of the system. As with other BPI Systems, the capacity will vary based on the computer you're using

TIME: 16:32

BPI SYSTEMS, INC.
INVENTORY CONTROL - VERSION 1.00
MENU 3 - MAINTENANCE

3 ADVANCE PRINTER	4 COMPANY CODE AND DATE
5 CHANGE PROGRAM DISKETTE	6 LIST TO PRINTER/SCREEN
71 CREATE COMPANY	72 EDIT ACCOUNTS
73 LIST SCHEDULES	74 RENAME COMPANY
75 RECOVER SPACE	
91 FORMAT/BACKUP DISKETTE	92 CHECK DISKETTE SPACE
COMPANY CODE: FUTURE	
'AS-OF' DATE: 01/01/86	
LIST TO: PRINTER	

ENTER COMMAND NUMBER ==>

Fig. 15-2. A special menu is provided for the creation of the BPI Inventory System. This particular menu is for an older version of the BPI System; you'll note that some of the older versions allow you to do things such as formatting or backing up a disk without leaving the system. New versions of the system have you do these functions through the computer's normal operating system.

on and whether you are using floppy disk or hard disk. The creation of the system is handled with a special menu (Fig. 15-2).

Reports

With the BPI Inventory System you have the following reports available to you:

- Purchase order
- Invoice
- Packing lists
- Credit memo
- Price labels
- Inventory lists
 - By item number
 - By department number
 - Alphabetically by description
 - By primary vendor
 - By vendor reference number
 - By price list

- Low balance items
- Backordered items
- By selective description
- By selective item number
- By cost layers
- By branch location
- By item category
- Inventory control general ledger
- Inventory control income statement
- Inventory control trial balance
- Inventory control cash receipts journal
- Inventory control merchandise purchase journal
- Inventory control invoice register journal
- Inventory control general journal
- Merchandise purchased by due date journal
- Listing of inventory control general ledger numbers
- Listing of inventory control customers in numeric order
- Listing of inventory control customers in alphabetic order
- Listing of inventory control vendors in numeric order
- Listing of inventory control vendors in alphabetic order

If you look closely at this list, you'll see a familiar pattern emerging. In fact, much of the structure of the reports in the inventory system follows the same structure found in the General Accounting System. In addition, a great many of the listings are the same information sorted in different ways to provide you with a convenient reference tool. Finally, all reports are accessed through a menu (Fig. 15-3).

Operating the Inventory Control System

The BPI Inventory Control System is generally set up so that you can work from reports when handling the inventory situation. The actual entry of the inventory information can be handled in a batch basis.

You can keep the BPI Inventory Control System running and available to produce invoices on demand. However, this system is really not designed to be a substitute for a cash register; a more typical entry method would be to use handwritten sales slips or purchase orders received from customers in a batch basis. In other words, the BPI System is oriented as an accounting inventory control system, not as an order entry system.

CONVERSION TO THE SYSTEM

Converting to the inventory control system can be more work than the other modules in the BPI System. This is simply because of the number of inventory items most companies have. In common with using the other BPI modules, you should make sure that the capacity of the inventory system will meet your need for items, vendors, general ledger numbers, and customers.

If you've already entered a customer and vendor list to the BPI General Accounting, Accounts Receivable, or Accounts Payable System, you do not have to enter them


```

                                BPI SYSTEMS, INC.
TIME: 16:30          INVENTORY CONTROL - VERSION 1.00
                                MENU 2 - POSTING

1 RUN QUEUE                2 ERASE QUEUE
3 ADVANCE PRINTER          4 COMPANY CODE AND DATE
5 CHANGE PROGRAM DISKETTE  6 LIST TO PRINTER/SCREEN

21 LIST CASH RECEIPTS      22 LIST MERCHANDISE PURCHASED
23 LIST INVOICE REGISTER  24 LIST GENERAL JOURNAL
25 LIST MDSE.PURCHASED (DUE DATE) 26 LIST INVENTORY

31 POST                    32 PROFIT AND LOSS
33 TRIAL BALANCE
41 END-OF-MONTH            42 END-OF-FISCAL-YEAR
43 TRANSFER TO G/A         44 TRANSFER TO A/R
91 FORMAT/BACKUP DISKETTE  92 CHECK DISKETTE SPACE

COMPANY CODE: FUTURE
'AS-OF' DATE: 01/01/86
      LIST TO: PRINTER
COMMAND QUEUE: EMPTY
ENTER COMMAND NUMBER ==>

```

Fig. 15-3. A variety of reports (or listings) can be produced by the Inventory System. These listings provide flexible, accounting-oriented inventory control.

again for the Inventory Control System. If you're going to use the Inventory Control System for the General Accounting System only, then all general ledger accounts will transfer from inventory control to general accounting. If you use General Accounting and Accounts Receivable with inventory control, then the invoice register will transfer from the Inventory Control System to the Accounts Receivable System.

If you go for the full-house accounting system (General Accounting, Accounts Receivable, and Accounts Payable), then the merchandise purchased journal from the inventory system will transfer to the Accounts Payable System. All this transferring will save considerable time and allow the modules to work together, but you still must create the accounts in the Inventory Control System.

For instance, in an inventory control general ledger you must have at least the following accounts:

1. Cash account
2. Inventory account
3. Accounts receivable account
4. Accounts payable account
5. Capital income account
6. Income (sales) account

7. Cost of sales account
8. Inventory overage account
9. Inventory shrinkage account
10. Sales tax payable account

These accounts should have the same numbers as the corresponding account in your General Accounting System general ledger. If your General Accounting System general ledger does not have these accounts, then you should add them.

All customers found in the inventory control listing of customers must be present and numbered in the same way in your General Accounting System. All vendors in the inventory control vendor listing must be present and numbered in the same way in your General Accounting System. Things like the customer and vendor list usually can be copied if they've been created for the other systems.

Your inventory control general ledger, however, does not have to have all the items found in your normal general ledger. For instance, most of the expense items in your general ledger, except those things directly dealing with sales, usually can be left out. This frees up more room for inventory items. By the way, all the rules regarding consolidating numbers and departments that apply with the general accounting general ledger also apply with the inventory control general ledger.

COMPANY CONFIGURATION

Many of the entries for company configuration will be familiar to you if you've installed the General Accounting system, Accounts Payable, or Accounts Receivable. Some things in the company configuration do deserve some comment, however.

The invoice numbering option gives you three choices. Option 1 has the system automatically assign invoice numbers. These invoice numbers are assigned consecutively from 1 to 99999 (on most BPI Systems). If you choose this option you can also type in a different invoice number in place of the computer-assigned number when you're actually creating a invoice. The system will accept this new invoice number and will start sequentially assigning additional invoice numbers from this point.

Option 2 requires that you to enter the invoice number each time you create a invoice. This invoice number can be any combination of letters, numbers, or hyphens up to eight characters long. Option 3 is similar to option 2, except that the invoice number is optional. In other words, with option 2 you must assign an invoice number to every invoice, but with option 3 you may or may not assign an invoice number, depending on circumstances. A special note here is that if you're trying to merge inventory control with the BPI Accounts Receivable, and if you are using Accounts Receivable open item method of maintaining accounts, then do not select option 3.

The invoice register cash account is simply the place where you want cash sales listed. This is usually a cash on deposit account, or the account where you normally deposit cash for your sales.

The sales tax payable account number is a required entry. If you are in a state which does not charge sales tax you must still give a sales tax payable account number (and create one, for that matter, in the general ledger), but you can give a sales tax percentage of zero.

The merchandise purchased journal accounts payable account number is where

you record the purchase of merchandise which you're buying on credit terms.

The inventory account number is the general ledger asset account for inventory.

Some BPI versions of the inventory system have you declare how many department numbers you have. You must have at least one, and you can have up to 10 departments or branches. After giving the numbers of departments or branches, you must give a departmental income account, cost of sales account, inventory shrinkage account, and inventory overage account. This can be a little confusing because the system does not want you to give the same numbers as the accounts used for consolidating balances on the income statement. Since you must have at least one department—even if you don't need it—you have to create some dummy accounts as departmental income, cost of sales, inventory shrinkage, and inventory overage accounts.

Company name, mailing address, and shipping address are pretty straightforward, along with telephone and tax exemption number. Tax exemption numbers are used on purchase orders if they are nontaxable.

The sales tax percentage can be input as decimals, such as 6.25, which would represent 6.25 percent. Don't enter the sales tax as .0625. If you happen to be in a state where you have no sales tax, enter a zero as a sales tax percentage.

If you have preprinted forms for inventory invoices and purchase orders that have your company address on them, then you can tell the system not to print your company's name and address. Otherwise the system will print your name and address on the various forms.

The inventory accounting methods available are FIFO, LIFO, and AVER (for average). These have already been discussed.

The price label code option available in this system can be a little confusing. The price label code is simply a way of coding the prices and date into inventory on price labels. To do this, the system translates each number into a letter, and you can pick which letters correspond with which numbers. Naturally there should be no duplicates here. For instance, if you entered ABCDEFGHIJ when prompted by the system for the price label code, you would have chosen a code where A = 1, B = 2, C = 3, D = 4, etc. until J = 0. On the price label, an item costing \$10.00 would appear with a code of AJJJ.

Having the cost of the item and the date it was put into inventory may not be particularly useful to you, especially if it is coded in the form of letters of the alphabet. In this case, you can specify 10 blank spaces, instead of characters, and the cost and date code would not appear on your pricing labels.

The last question asked in company configuration is the number of branch locations (from 0 to 10). If you have branch locations and you want to keep inventory records separately for each branch, put any number except a zero here. If you do this, you can no longer record sales of items directly from your central location. Instead, you have to transfer items from the central location to the branches (at least in the records of the system) before the sale can actually be recorded. If you don't actually have branches, this is an additional step which means unnecessary work.

Customers and Vendors

If you've already created your customer and vendor list for one of the other BPI Systems, these usually can be copied from the other system to the inventory system.

Copying customer and vendor lists is one of the options available to you under the maintenance menu of the inventory control system.

Merchandise Purchase Prompts

As with the other systems, you can custom-design the input screen for your merchandise purchase to show the proper inventory account numbers that would normally be used when you purchase something. These accounts must be expense accounts and their numbers range from 6000 to 7999. They should match the same accounts found in your general accounting system.

ENTERING INVENTORY ITEMS

The actual entry of the inventory items information is probably the biggest part of getting the inventory control system up and running. This is not because the information required for each inventory item is especially difficult, but simply because most businesses have a great number of inventory numbers which have to be entered. First we'll discuss what information is necessary for each inventory item and then we'll discuss some suggestions on how to gather this information.

Item Number. Each item in inventory must have an item number consisting of a four-digit number ranging from 1 to 9999. You can set the first number when putting in an item and the system will automatically increment this number by one for all subsequent items. During the entry process you can also change the number; the system will start incrementing the changed number by one for subsequent items.

This number is an internal control number used by the BPI Inventory Control System. Many of the items that you have in stock may also have manufacturer's stock numbers or part numbers attached to them. Unless these numbers happen to be four-digit sequential numbers with no duplicates, I would not advise trying to force the BPI item number to correspond to any manufacturer's number. The manufacturer's number can be recorded in the vendor reference number.

Primary Vendor Number. This is the vendor corresponding to the vendor number in your file from whom you usually order this item. "Primary" vendor number is probably a little misleading, because the BPI System doesn't allow you to record a secondary vendor. However, you should make sure that all your regular vendors are assigned a number and at that these numbers are entered to the system.

The vendor reference numbers can range from 1 to 9999. For items which are special ordered from vendors you might not otherwise deal with, a good hint is to have a miscellaneous vendor assigned to a number such as 9999.

Vendor Reference Number. This is the manufacturer's number used by the vendor to identify the item. You get up to 12 characters or spaces for this number, which satisfies most numbering schemes. If a vendor has an exceptionally long numbering scheme, you might have to put it into the description.

Description. This can be up to fifteen characters or spaces. Normally this would be an English-language description of what the item is. If you have several items of the same type you might want to put a qualifier on this giving the color, size, or some other distinctive characteristic. For instance:

Backpack - large - blue
Backpack - small - blue
Backpack - large - yellow
Backpack - small - yellow

With this type of description, all the backpacks will be listed together on reports sorted by description, and the qualifiers will help you to differentiate one backpack from another.

Minimum Stock Quantity and the Magic Number. This can be a number from 1 to 9999. It indicates the minimum quantity you want to keep in stock at all times. This is a very important number, because this number is used to trigger the low stock report from which you can order.

In inventory slang, BPI uses what is called a “magic number” ordering system. When the stocking levels of an item reach the magic number, the item is reported to you so you can reorder. With this system, the setting of the magic number is quite critical. If the magic number is set too low, you will run out of stock before you get new supplies in. If the magic number is set too high, you are carrying excess inventory for the item; inventory which may never be sold.

The strength of a magic number system is that it is effective and quite simple. The weakness is that individual items are not examined and forecast each time the ordering cycle is run. This means a great deal of reliance is put on the person who is setting the magic number.

In the life cycle of most items in stock, the magic number may change several times. To set this number you usually look at two things:

1. How many of an item are you selling?
2. How long will it take you to get the item back into your stock when you order it?

For instance, if you have an item that sells five units per week and there's a two-week ordering cycle, and if the minimum stocking level specified is anything under 10, then you're likely to run out of the item before new supplies of the item can arrive at your business. This is because you will normally need 10 items in stock to satisfy a two-week demand. If you don't have these items you will normally run out of stock before the two weeks are up, meaning you will be in an out-of-stock situation before your new order can reach you.

If you can predict usage and delivery time with great certainty, then the magic number or minimum stocking level can be set at exactly 10. With this situation, the tenth item will be sold just as the new order arrives at your back door. Most businesses can not predict the usage or delivery times with this type of accuracy. Therefore most items also require a “safety stock.” This safety stock is additional stock usually carried to accommodate fluctuations in demand or delivery times.

For the item we've been discussing that sells approximately five items a week with a two-week delivery, you might want to set the minimum stocking level at some place between 12 and 15, depending on how reliable is the delivery and how consistent is the demand. By setting the minimum stocking level at 12, you would have a two-unit cushion to accommodate any extra demand during the time 2 you're waiting for delivery

or to accommodate any tardiness on the vendor's part.

With this example, you'd be following a minimum inventory policy. It's likely that even after you got the new item, you'd be sending in an additional order quite soon. For many items this is a sound policy, because the cost of the item is significant enough that you want to keep your inventory levels for the item at the minimum level necessary to meet demand. You don't want to tie up excess money in expensive inventory if you don't have to.

For some items, a third factor enters into what your minimum stocking number (or magic number) might be. This third factor is the individual cost of the item and the cost to reorder. If you have a group of nuts and bolts which cost less than a penny apiece, the time to process and place an order might exceed the actual value of the items that you're ordering. Under these circumstances you might adjust the amount you're ordering.

The reorder quantity is the second part of the magic number system. The minimum stock quantity tells you when to reorder. The reorder number tells you how much to reorder. There are formulas which figure out the economic order quantity, looking at usage, ordering costs, and delivery time. However, since the BPI System uses an order technique with the main virtue of simplicity, my advice is simply to use common sense when setting the reorder quantity and the minimum stock level. One nice thing about the system is that it's not going to forget these levels and it will remind you when it is time to reorder the item. This is much better than human memory or a great many manual systems.

As you'll see, the system also provides you with information which will help you make a more intelligent decision on the exact quantity to reorder, because the reorder quantity listed is simply a recommendation.

Department Number. The system requires you to enter which department will stock the item. If you recall, you have to list at least one department, so you would use this one department number even if you didn't have additional departments to worry about.

Sales Tax? (Y/N). If you are in a state which doesn't charge sales tax, you'll always mark this question "N" when setting up a stocking item. Even in states that do charge sales tax, specific items are sometimes exempt. Again, this is an area where an accounting professional can help you, depending on the nature of your business. If the item should have sales tax charged on it when you make the sale, you would enter Y for yes. The system will use the sales tax rate specified under your company configuration for calculating the sales tax.

Stocking Unit. This is a two-character unit of measure. BPI does not specify what these two characters should be, so you should choose two character codes which are meaningful to you. Some suggestions are:

EA	each
BX	box
GR	gross
LB	pound
DZ	dozen
OZ	ounce

CS case
FT foot
GL gallon
PT pint

List Price. List price is the current price you're charging to customers. It can consist up to nine characters in most of BPI versions, giving you a maximum list price of \$9,999,999.99. This is the price per sales unit.

THAT'S NOT ALL, FOLKS

After you've set up each individual inventory item, you're not finished with what is required by the BPI Accounting System to initialize the system. You now have to enter the cost and quantity data required by the system for each item.

As mentioned, the BPI System can keep track of three cost levels with any individual item. In addition, the BPI System is designed to handle branches or other locations when dealing with items. With these cost layers, layer one is the most recent cost for the item, layer two is the next most recent, and layer three is the oldest cost or an average of the oldest costs for the item.

COST INITIALIZATION

This phase of initialization for the BPI Inventory System probably causes the greatest problems. Frankly, the BPI System is more sophisticated in terms of its cost retention than most of the manual systems used by people who want to convert to BPI. Many manual systems will not have the kind of cost history that the BPI System can accommodate.

If you're using an average cost system and this is the system you intend to use with the BPI System, then this is not a major concern. What you can do is enter the quantities and the average cost as the first layer of your system and simply ignore cost layers two and three.

If you intend to use the LIFO or FIFO ability of the BPI System, then the various cost layers are a concern to you. If you enter all your inventory at your most current cost, for instance, you run the chance of inflating your inventory. This makes the assets of your firm look a lot bigger, but it also makes you more liable for things like property taxes in most states. In addition, the inventory figures in your general ledger and the inventory which will be computed by the BPI Inventory Control System probably will not match, so some adjustment will have to be made (usually to the general ledger, but this is another area where professional advice is important).

If you have cost and quantity history that can accommodate BPI's cost level capabilities, then you can simply enter this data when you install the system. If you don't have this type of cost history, then you're going to have to make some basic decisions. These decisions should usually be made in conjunction with an accounting professional. One suggestion is to go through past invoices and create a cost history for big ticket items. In other words, for those items with the greatest value in your inventory, you could go through and check past invoices to see what you have paid for those items and to see if there are any cost differences for the quantity of items you have

on hand. In some cases there may be no difference.

If you have 50 of an item on hand and your last purchase was for 100 items, then all the items in inventory are purchased at the cost represented by the most recent invoice for 100 items. On the other hand, if you have 200 items in stock and your last purchase was only for 50, then only 50 of those items can be accounted for by your last cost price; 150 items were purchased prior to your last invoice and possibly at a different price.

If all this seems too complicated for you, then another thing which might be done is simply to take an average cost for your current inventory by item and enter this average just as you would if you were using the BPI average cost method. The effects of LIFO and FIFO would be felt at some time in the future as new items are brought into inventory through the BPI Accounting System, and BPI keeps track of the various cost levels.

Which of these suggestions makes the most sense for your particular business depends on the age of your inventory, the amount of change in cost prices for that inventory, and your particular accounting situation. BPI provides a variety of reports to help you control these cost layers, the most useful being a report that shows you the cost layers, the remaining quantities of merchandise at each layer, and their value (Fig. 15-4).

PERFECT TIME FOR CONVERSION

Probably the best time for conversion to the BPI Accounting System is right after a physical inventory. This gives you an accurate picture of the quantities on hand in inventory and it also gives you an accurate accounting of the value of that inventory. If this isn't possible, then conversion at the close of a month-end is the next best choice.

USEFUL REPORTS

In addition to purchase orders, invoices, packing lists, credit memos, and price labels, there are some inventory lists which merit special attention. The first is the listing of items with a low inventory balance (Fig. 15-5). This is the report normally used for ordering items. When the inventory quantity on hand goes below the reorder point you have set, the item starts appearing on this report. The items are listed by BPI item number; in addition to the description, you're also given the vendor reference number and vendor number for the item.

On this report you're also given the two-character unit code (e.g., EA, DZ, LB, etc.), any quantity which is on back order, the number of units sold month-to-date and year-to-date, as well as the reorder point and reorder quantity you've previously set. The report also gives you on-order and on-hand information for the item, as well as cost and extensions on the total value of the inventory at your price and at the customer's price.

Normally you would examine each item on the list, making sure that a sufficient quantity is on order to satisfy future demand. If necessary, you would place an order for the item with the vendor. BPI does not generate this order for you automatically, giving you a chance to pick the amount of this order based on the recommended order quantity and the sales information on the report.

FUTURE CORPORATION

I/C - LISTING
COST LAYERSPAGE 2
GROUP 1

DATE PRINTED: 01/01/86

TIME PRINTED: 16:48

ITEM #	DESCRIPTION	LAYER	ON HAND	COST EACH	EXTENDED COST
109	CORD H/NIKON	1	15	5.25	78.75
		2	8	5.40	43.20
		3	0	.00	.00
			23		121.95
110	FEATHERLITE STN	1	8	33.75	270.00
		2	0	.00	.00
		3	0	.00	.00
			8		270.00
111	INS CAMERA TOTE	1	15	3.38	50.70
		2	12	3.35	40.20
		3	8	3.38	27.04
			35		117.94
112	TRIMMER 8 IN.	1	4	22.04	88.16
		2	7	21.76	152.32
		3	0	.00	.00
			11		240.48
113	CANON F3.8	1	7	90.97	636.79
		2	0	.00	.00
		3	0	.00	.00
			7		636.79
114	MINOLTA MD F3.8	1	6	77.97	467.82
		2	0	.00	.00
		3	0	.00	.00
			6		467.82
115	TRIPOD 3 SEC CH	1	8	24.94	199.52
		2	0	.00	.00
		3	0	.00	.00
			8		199.52
116	GRIP POD DELUXE	1	10	11.40	114.00
		2	0	.00	.00
		3	0	.00	.00
			10		114.00
TOTAL INVENTORY SUMMARY			296		4,809.90

Fig. 15-4. The BPI Inventory System allows FIFO, LIFO, or Average Inventory Costing (see the text for details), and also provides reports which help you control the various cost levels and merchandise on hand at each of the cost levels.

FUTURE CORPORATION									
I/C - LISTING									
LOW BALANCE ITEMS									
DATE PRINTED: 01/01/86									
TIME PRINTED: 16:46									
PAGE 1									
GROUP 1									
ITEM #	DESCRIPTION	UNIT	MTD	POINT	ON	COST	PRICE		
DEPT	VEND REF NO	BACK	ORD	YTD	QTY	ORDER	LAST	EACH	TOTAL

102	EUREKA 8D11	BX	0	9	0		20.97		27.97
1	1:248937	0	0	9	8		169.65		223.76
103	CASE SU-COLOR	CS	0	6	0		5.94		6.99
3	3:489673	0	0	6	5		29.70		34.95
104	PANATOMIC-X-FILM	EA	0	50	75		4.76		6.35
2	2:FX-410	0	0	25	5		23.80		31.75
107	FLEX PROCES KIT	EA	0	20	20		11.72		14.65
4	4:12454	0	0	5	4		46.88		58.60
TOTAL INVENTORY SUMMARY						22	270.03		349.06
TOTAL PERCENT MARKUP									29.27

Fig. 15-5. One of the Inventory System reports, low balance items, provides useful information at order time. Note that each item occupies two lines of the report. In the first column, the item number and the department number are found together (e.g., 102 is the item number and 1 is the department number).

Ordering

One important thing to do with this report is occasionally to check the current report against past reports. Depending on what your order cycle is, this comparison should be made from 2 weeks to a month apart. Scan by item number to see if any common item numbers appear on both reports. These item numbers could be caused by slow delivery by the vendor; they could also be items which are on an increasing sales trend, in which case you might think about increasing the reorder point or reorder quantity to compensate for this sales trend.

Another important thing to watch for is comparing the reorder point and reorder quantity listed on the report to your actual month to date and year-to-date sales. If the reorder point and reorder quantity seem excessively high for the amount of turnover shown on the report, this might be an item that is on a downward sales trend. In this case, instead of ordering the item you would edit the item's record to reduce the reorder point and reorder quantity to something more in keeping with the item's turnover.

One caution is to watch for items which are seasonal in nature, because a downward sales trend could be temporary in nature. Many items are affected by the time of year, (such as skis, Christmas ornaments, swimsuits, etc.).

If the item is on a declining sales trend, reducing the reorder point and reorder quantity is one way to help you "sell down" on the item, putting the stocking levels of the item at a more realistic level. By working this order report and adjusting the reorder point and reorder quantities to suit the individual items, a tighter control can be maintained of your inventory. In many cases tighter control can be translated into

FUTURE CORPORATION

I/C - LISTING
BY DESCRIPTIONPAGE 1
GROUP 1DATE PRINTED: 01/01/86
TIME PRINTED: 16:54

ITEM #	DESCRIPTION	UNIT	TURN	REORDER	ON	COST	PRICE
DEPT	VEND REF NO	BACK ORD	MTD YTD	POINT QTY	ORDER HAND	LAST TOTAL	EACH TOTAL
113	CANON F3.8	EA	0	5	0	90.97	129.95
1	4:SAMIGON	1	0	5	7	636.79	909.65
103	CASE SU-COLOR	CS	0	6	0	5.94	6.99
3	3:489673	0	0	6	5	29.70	34.95
109	CORD H/NIKON	GR	0	15	0	5.25	7.50
1	3:PARA #4-6-C	0	0	12	23	121.95	172.50
102	EUREKA 8D11	BX	0	9	0	20.97	27.97
1	1:248937	0	0	9	8	169.65	223.76
110	FEATHERLITE STN	EA	0	5	0	33.75	45.00
1	4:PIC #4707	0	0	5	8	270.00	360.00
108	FLEX DEVELOPER	EA	0	30	0	7.77	9.14
1	1:K1098	0	0	20	58	445.62	530.12
107	FLEX PROCES KIT	EA	0	20	20	11.72	14.65
4	4:12454	0	0	5	4	46.88	58.60
106	FLIXICLR BLEACH	GR	0	20	0	14.91	21.30
1	1:K1817	0	0	10	28	425.96	596.40
116	GRIP POD DELUXE	BX	0	8	5	11.40	14.25
3	4:SAMIGON F6	0	0	5	10	114.00	142.50
111	INS CAMERA TOTE	BX	0	25	0	3.38	4.50
2	2:KODAK A7-300	8	0	15	35	117.94	157.50
114	MINOLTA MD F3.8	EA	0	5	0	77.97	129.95
2	2:SAMIGON XS	0	0	5	6	467.82	779.70
104	PANATMIC-X-FILM	EA	0	50	75	4.76	6.35
2	2:FX-410	0	0	25	5	23.80	31.75
100	SUPER COLOR AX1	CS	0	10	10	31.47	44.95
1	4:23425	0	0	10	20	618.74	899.00
105	TRI-X PAN FILM	EA	0	40	0	5.99	7.05
4	4:TX-410	0	0	40	50	297.80	352.50
112	TRIMMER 8 IN.	CS	0	8	0	22.04	27.55
3	3:PRIMER #208	2	0	5	11	240.48	303.05
115	TRIPOD 3 SEC CH	BX	0	7	0	24.94	33.25
2	3:SAMIGON D3	0	0	5	8		

Fig. 15-6. The system provides several reports to help you find inventory items quickly. Most of these reports are sorted by item number. You can also get reports which are sorted by description, so that you can quickly find the item, if you don't know it.

reduced inventory levels, while at the same time increased customer satisfaction and the amount of orders you can fill from stock.

Backordered Items

This report is similar to the low balance items report. In this case, only backordered items are shown in the report. These are probably items which should have special attention paid to them; expedited action may have to be taken in order to get the item from your supplier.

Price and Description List

The BPI Inventory Control System is not designed to act like a cash register, where transactions can be punched in immediately and a receipt produced for the customer. However, there are several reports that can be very useful for selling in a retail environment.

The first is a price list by item number. This price list gives the item number, the description, the unit code (BX, EA, etc.), the quantity on hand, and the retail price or the price charged to the customer. This is extremely useful because it can be kept on a counter for reference, to see if the item is in stock and its the current retail price. The report is large enough so that notes can be placed next to the on-hand quantity to show when the inventory is reduced as sales are made.

A companion report is the listing by description (Fig. 15-6). This listing by description will help you find an item if you don't know the item number. This listing is very much like the low balance or back order listing, in that it has on-hand, on-order, back order, sales, and reorder information. Unfortunately, it also has cost information, and for this reason this report is probably something you would not want to have on a retail counter, to be referred to by sales people in front of a customer. It does, however, provide a handy cross-reference to the actual price list.

SUMMARY

The BPI Inventory System can provide a valuable tool for controlling the largest financial asset of most businesses. The system is accounting-oriented and provides three levels of cost control for average, LIFO, and FIFO inventory costing methods. This system can be operated as a stand-alone unit or in conjunction with other BPI modules.

If you are to use the inventory system with other BPI modules, it should be installed after the General Accounting System and the Accounts Receivable System have been installed. Following this sequence will save you work because you can transfer customer and vendor lists from the other systems to the accounting system. The best time for converting to this system would be after a physical inventory.

If you have installed other BPI Systems, the inventory system should not present unusual problems, except for the requirement of setting up each individual inventory item in your system. This setup provides for initial cost figures at up to three levels, as well as distributing inventories between various branches and locations, if you so desire. This can provide a problem for those individuals who are on a less sophisticated inventory control system at the time of conversion. However, this problem is not critical because averages can be used for the initial cost information for each item.

Chapter 16

Epilogue

Do you see yourself here?

Lisa

Lisa Hart, the owner of Lisa's Palette, was still working long hours. Extra hours seemed to be a fact of life when you ran a one-person business. But now the hours Lisa put into her business were measurably more enjoyable.

Instead of hours spent pushing a pencil and punching a calculator, she was now able to spend more time on the creative aspects of organizing her business and helping it grow. Purchasing a personal computer and installing the BPI General Accounting System for her business was a great factor in this change. Lisa was not interested in technology, and when it came time to buy her computer she followed the advice of many experts.

What she did was first choose a software package she wanted to use, and then she went shopping for computers which would run that package. She chose BPI on the advice of her CPA, Jerry Washington. Jerry told her that the package was well-tested, that for a business of her size she needed only the General Accounting Module, and that the system would run on a great variety of computers.

The fact that BPI would run on many different computers allowed Lisa to shop around and purchase the computer that she was able to get the best deal on. She was also able to buy a word processor program and a mailing list program; these two programs, plus the BPI General Accounting System, were the three pieces of software she used.

After getting some help from Jerry in the initial stages of setup, she was able to get the hang of operating the BPI System. This cut the time she spent on accounting tasks enormously. It also helped her to gain a better control of her business, and she felt confident that she was able to plan the future of her business from the basis of sound and accurate financial data.

Using the word processor and mailing list packages on the same computer, she was able to implement her plan to prepare special mailings for her customers to inform them of new products, classes, and special events at Lisa's Palette.

She was not enamored of technology and did not classify herself as a computer nut, but she was enamored with the drastic reduction of repetitive tasks that the computer provided her with. All and all, Lisa would classify her plunge into personal computing and her installation of the BPI System as a happy marriage of technology and art.

Jerry

Lisa's CPA, Jerry Washington, also had plunged into personal computing, but he did so in a big way. After researching hardware and software, Jerry had purchased an IBM Personal Computer AT with a large hard disk drive. On this machine he installed all the BPI Accounting modules. For his own business, he used only three of them: the General Accounting module, the Time Accounting module, and the Accounts Receivable module.

Jerry found that this hardware and software helped him expand his business in several key areas. One was that he no longer had to depend on outside timesharing services for the processing of client's books. He could do it with his own staff and his own computer. This gave him a great deal more control over how the books were set up and how the data was entered; it also gave him faster turnaround and a closer relationship with clients.

A second benefit was that Jerry was now able to expand his consulting with clients who wanted to install their own computers. Having had done that with Lisa Hart and with Pat Mathews, he was able to meet new clients who not only used his consulting advice to install their own accounting systems on microcomputers, but who also used Jerry's services for tax preparation and financial consulting.

Pat

Pat Mathews also bought a large personal computer. He had briefly thought of using Jerry Washington's services to keep the books for his company, but although Jerry's services would have been an improvement over the timesharing system he had been using, it still would not have provided the immediate information that Pat was seeking.

Because Pat had many employees, he purchased the BPI Payroll System, as well as the General Accounting, Accounts Payable, and Accounts Receivable modules. With Jerry Washington's help, he spent some time training his employees to make sure they were completely familiar with the operation of the system, running the computer, and backing.

Pat went to the trouble of running two systems in parallel for 60 days. He kept his timesharing service while he was training operators to run the BPI System. This

involved some overtime pay, as well as hiring a temporary employee for a couple of days; Pat figured that the costs were well worth it, because it helped him have a smooth transition from his old system to the BPI System.

He had originally planned on running parallel for 30 days, but at the end of the first month of parallel operation, he found a discrepancy between what the BPI books showed and what his timesharing service showed. He decided to run in parallel a second month. Pat audited the two systems and found that one of the manual input sheets created for the timesharing service had been miscoded. This meant that the figures produced by the timesharing service were wrong and the BPI books were right. This discrepancy was caused by a normal human mistake, which occurs when people are doing manual processes.

In discussing his discovery with Jerry Washington, Jerry pointed out that the BPI screens would not have allowed this particular type of mistake to pass, because the custom input screens of the BPI System automatically show the proper account numbers and apply entries to the proper offsetting accounts as transactions are made for payers, payees, and employees.

“Human mistakes can still be made with the BPI System,” Jerry reminded Pat. “But the system cuts down on a lot of those errors, simply because of the way it’s set up to operate.”

George

Seeing Pat’s success with the BPI System inspired George Yoshida to try to install the system a second time. This time he made sure he had good financial records going into the system, and he worked out a routine to assure that the information in the system would be gathered, entered, and backed up properly.

George started by installing the General Accounting System; after having it up and running for a few months, he felt comfortable enough to purchase the BPI Inventory module. George’s bait and tackle shop had literally thousands of items in inventory and he wanted a better way to control this inventory.

When he bought the Inventory System, George also upgraded his computer to a hard disk. This gave him a noticeable performance increase on almost all the software he was running on his computer, especially on the BPI System, which uses the disk drives almost constantly to call in parts of the program or to look at or write new data.

Installing the Inventory Control System right after a physical inventory made sure that George had a smooth and accurate transition to the system. After about 4 months, he started realizing that getting proper control of his inventory was allowing him to provide better service to his customers, while at the same time reducing his stock of slow-moving items. This freed up capital in George’s business and allowed him to make more profit. This double benefit of getting control of his finances and keeping track of his inventory seemed almost too good to be true for George, and it struck him as being well worth the time and discipline it took to maintain the system in an accurate condition.

John

Computer consultant John Sanders did not purchase the BPI System, at least in-

initially. Shopping around, he found another system which cost considerably less. He bought the General Ledger for this system, but after purchasing the General Ledger Package, he realized that this system's general ledger did not have the accounts payable, accounts receivable, and payroll features found in BPI's General Accounting System. So he went back and purchased the Accounts Payable, Accounts Receivable, and Payroll Packages to go along with the General Ledger Package.

Instead of one integrated system to set up for his small business, he had four systems to set up. He also realized that the accounts payable and accounts receivable portions of the system he bought did not have all the features of the Accounts Payable and Accounts Receivable modules of the BPI System. More important, he realized that the operation of his system was not as convenient as BPI. There was considerably less setup time, but the reason for this was that the system had no custom screens.

Every transaction he entered required him to enter the account number and the offsetting account. These transactions were entered as plus quantities and minus quantities, and John was required to know which accounts had plus balances and which accounts had minus balances. Ninety percent of the transactions he performed were repetitive in nature, which meant that John was constantly putting in the same plus and minus accounts to perform transactions.

For a person who knew about computers, this was frustrating. John knew that if the system had been properly programmed, the system would remember these account numbers and transactions. He also perceived that in the long run his time was being used up at an unnecessary rate by the accounting system he had bought. In addition, the chance of error for these routine entries was also increased, because the system depended on John to remember which two account numbers were necessary to have offsetting transactions.

After a few months, John felt that he had made a bad bargain. He knew that the BPI System was not the only accounting system on the market—in fact, he knew that BPI System was not the only *good* accounting system on the market. But BPI had been around a long time, and this reservoir of knowledge was reflected in the features of its system.

Eventually John decided that he should have done what his research had told him to do in the first place. He bought the BPI General Accounting System. He was irritated with himself for having spent the time and money on a system which really didn't meet his needs or requirements, but after a second transition from the accounting system he bought to the BPI System, he was happy to see that the quantity of entries and the number of account numbers he had to remember when he went through and updated his books was greatly reduced.

You?

All of the case studies presented above are fictitious, although the circumstances are based on real people and businesses. Because the details have been fictionalized, it's possible to create a happy ending for all the people discussed. Because this happy ending has been created, however, doesn't mean that happy endings aren't real. In real life, when people follow an organized and methodical approach to installing well-tested computer systems, the result is usually success.

You probably know horror stories about computer systems: systems that don't work, which weren't tested, or which cause tremendous problems when they are installed. These horror stories form one compelling reason for approaching an accounting system for your business in a very conservative fashion. The system should be conservative, well thought out and—more importantly—exhaustively tested.

The key area where most people have trouble in installing any computer system is the transition to the system. This book has placed an emphasis on real-life techniques to provide advice on picking, installing, and operating the BPI Accounting Systems modules suitable for your accounting needs. Please consider this advice carefully, apply it to your own personal business situation, and enjoy the successful implementation and operation of the BPI Accounting System.

Appendix

Appendix

**A Practical Guide to
the BPI Accounting System**

COMPUTER	GENERAL	ACCOUNTS	ACCOUNTS	PAYROLL
	ACCOUNTING	RECEIVABLE	PAYABLE	
Apple II, II+	Yes	Yes	Yes	Yes
Apple III	Yes	Yes	Yes	Yes
Apple IIc, IIe ProDOS	Yes	Yes	Yes	Yes
Apple IIe DOS 3.3	Yes	Yes	Yes	Yes
Apple Lisa 2/5, 2/10	Yes	Yes	Yes	Yes
CBM 8032/8050	Yes	Yes	Yes	Yes
CP/M 80	Yes	Yes		
Compaq, Plus (3)	Yes	Yes	Yes	Yes
DEC Rainbow 100 (2)	Yes	Yes		
DECmate II	Yes	Yes	Yes	Yes
Epson QX-10 (2)	Yes	Yes		
HP 120, 125	Yes			Yes
HP 150	Yes	Yes	Yes	Yes
IBM PC, PCXT	Yes	Yes	Yes	Yes
Kaypro 2, 4, 10 (2)	Yes	Yes		
Mindset PC (3)	Yes	Yes	Yes	Yes
NEC APC III	Yes	Yes	Yes	
NEC PC8012/8031	Yes	Yes		Yes
Osborne (2)	Yes	Yes		
Sanyo 1150, 1250	Yes	Yes		Yes
Sanyo MBC Series	Yes	Yes		Yes
TI PC	Yes	Yes	Yes	Yes
TRS Model 2 (2)	Yes	Yes		
Tandy Model 2000	Yes	Yes		
Televideo PC, XT (3)	Yes	Yes	Yes	Yes
Xerox 820 (2)	Yes	Yes		
Zenith Desktop	Yes	Yes	Yes	Yes
Zenith Z-100 (2)	Yes	Yes		

(1) BPI is constantly introducing new versions of the system.
Check with a dealer for current availability.

(2) Uses CP/M 80 version.

(3) Uses IBM PC, PCXT version.

INVENTORY	JOB	TIME	CHURCH	ASSOCIATION
	COST	ACCOUNTING	MANAGEMENT	MANAGEMENT
Yes	Yes	Yes	Yes	
Yes	Yes			
Yes	Yes			
Yes	Yes	Yes	Yes	Yes
Yes	Yes			
Yes	Yes			
Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes
Yes	Yes			
Yes	Yes			
Yes	Yes			
Yes	Yes	Yes	Yes	Yes
Yes	Yes			Yes
Yes	Yes			

7

Index

Index

9000 account, 73, 75
9999 account, 36, 47, 64

A

account, special, 37
account number, 33
 ranges (table), 33
accounting equation, 92
accounting fees account, 45
accounts payable, 26, 43
 ledger, 20
accounts receivable, 26, 41, 127
 aging, 132, 139
 ledger, 19
accounts receivable account, 131
accounts receivable accounting
 balance forward method, 129-131
 changing methods, 131
 open item method, 129-130
accounts receivable ledger, 64
accrual basis, 26
accumulated depreciation, 41
accumulated depreciation account,
 42
advertising account, 45
as-of date, 80
ASCII, 108
assets
 current, 39
 fixed, 41

 other, 42
 ratio of current to fixed, 93
AURA, 108, 110
AURA Reformatter, 110

B

backup, 50, 52, 84, 89, 92, 118
 hard disk, 121
bad debts, 45, 139
balance sheet, 28, 92
 account consolidation, 35
 account numbers, 39
 footnotes, 93
 headings, 29
bank charges account, 45
basis
 accrual, 26
 cash, 26
 changing, 27
 selecting, 27
batch processing, 9, 75, 81
baud rate, 123
bill, phony, 101
bookkeeping, double entry, 24
books
 balancing, 24-25
 closing, 17
 creation of, 59-72
 definition of, 23
 initializing, 73

 monthly, 17
 "bottom line", 94
BPI Accounting System
 capacity, 19
 converting to, 52
 flexibility, 17
 future expansion, 18
 installation, 15
 license restrictions, 49
 market share, 6
 modules, 6
 operating characteristics, 16
 possible problems, 16
 self-training course, 53
 system availability, 6
 training, 52-53
BPI Accounts Payable System, 105,
 143-156
 accounting method, 151
 automatic entries, 154
 check writing, 154-155
 company configuration, 147
 conversion to, 152
 discount method, 152
 general ledger, 148
 invoice entry, 153
 password, 148
 reports, 155
 system organization, 146
 vouchers, 149

BPI Accounts Receivable System, 105, 127-141
 company configuration, 134
 entry screens, 136
 general ledger, 132
 password, 135
 reports, 136

BPI Association Management System, 112
 reports, 113

BPI Budget Analysis System, 116

BPI Church Management System, 113

BPI General Accounting System
 frequency of operation, 77
 initiating processing, 78
 installation, 50-51
 multiple systems, 50
 payroll, 68
 reports produced, 21
 sequence of entry, 81
 sequence of operations, 9-10
 system interrelationships (diagram), 7
 user circumstances, 12

BPI Information Management System, 116

BPI Inventory Control System, 105, 171-188
 company configuration, 178
 conversion to, 176, 184
 cost initialization, 183
 customers and vendors, 179-180
 dummy accounts, 179
 general ledger, 177
 item entry, 180-183
 operation, 176
 price label codes, 179
 reports, 175, 184
 system setup, 174

BPI Job Cost System, 6, 114

BPI Payroll System, 68, 105, 157-169
 account editing, 168
 capacity, 160
 commission plans, 161
 company configuration, 164
 conversion to, 162
 employee information, 167
 employee numbers, 162
 installation, 163
 mandatory accounts, 164
 pay periods, 160
 payroll deductions, 164-167
 reports, 163
 starting, 167
 system characteristics, 158-160
 system operation, 168

BPI Personal Accounting System, 116

BPI Personal Investing System, 116

BPI Professional Tax System, 116

BPI Time Accounting System, 6, 115

branches, multiple, 33

Bricklin, Dan, 106

"brown paper bag" system, 14

C

calendar year, 135

capital account, 43

capital income account, 37, 64

capital stock, 43

cash basis, 26

cash disbursements journal, 20, 66

cash flow, 128
 timing, 144

cash flow, 95-97, 144-146

cash on hand, 41

cash over/short, 44

cash receipts journal, 20, 67

cash register journal, 68

cash register report, 95

cash sales account, 66

cash sales journal, 20

cell, spreadsheet, 107

chart of accounts, 15, 18, 23-37
 conversion of existing, 55
 headings, 28
 headings (table), 29
 multiple branches, 33

check control, 103

checkbook, balancing, 103

collusion, 102

commission plans, 161

company code, 59

company configuration, 61, 147

company configuration menu, 27

company name, 63

CONDOR, 110

consolidated income statement, 94

conversion, 49-57
 diary, 57
 existing chart of accounts, 55
 methodical approach, 77
 possible problems, 76
 timing of, 56

cost of sales, 44

Create Company command, 59

credit, 27

credit account, types of, 131

credit balance account, 27

credit memo, 154

current assets, 39

current liabilities, 43

customer number, 69, 135

customers, categorization of, 136

D

data entry, 9, 15

data interchange format (DIF), 108

data transfer, 108

database, 110

dBASE, 110

debit, 27

debit balance account, 27

deduction memo, 154

departmentalization, 35
 restrictions, 34

departments, multiple, 33

deposit, 42

depreciation, 41, 45
 accumulated, 41

depreciation expense, 42

discount, lost, 152

discount memo, 152

diskette
 care of, 49, 119
 contamination, 119
 quality of, 118
 salvaging, 119

double entry bookkeeping, 24

E

employee number, 55, 69, 162

employee reports, 97

entertainment expense account, 45

entry, standard, 70

expense, depreciation, 42

F

FICA payable, 43

FIFO, 174

file, external, 111

file utility program, 120

finance charges, 129

finance charges account
 accounts payable, 47
 accounts receivable, 46

fiscal year, 135

fixed assets, 41

folio, 85

Frankston, Robert, 106

fraud, 99
 external, 99
 internal, 100
 preventing, 101-104

furniture and fixtures account, 42

Fylstra, Dan, 106

G

general journal, 20

general journal account, entering, 75

general journal entries, 26, 74

general ledger, 12, 19, 148
 Accounts Receivable System, 132
 creation of, 60
 editing, 71
 General Accounting System, 132
 setup, 55

general ledger report, 95

generally accepted accounting practices, 16, 26

growth factor, 18

H
handshaking, 123
hard disk, 50, 120
 access menu, 51
 backup of, 121
hash total, 81

I
income, 43
income statement, 28, 93
 accounts, 43-47
 consolidated, 94
 headings, 32
 using spreadsheet, 109
income transfer (9999) account, 36, 47, 64
installation (9000) account, temporary, 47
insurance account, 45
interest expense, 45
inventory control
 backordered items, 188
 "magic number" ordering system, 181
 manual, 171-173
 ordering, 186
 reorder quantity, 182
 safety stock, 181
 seasonal items, 186
inventory overage account, 46
inventory shrinkage, 46
inventory valuation
 average, 174
 FIFO, 174
 LIFO, 174
invoice
 numbering options, 65
 regular, 154
invoice entry, 153
invoice numbers, 65, 135
invoice register (journal), 20, 64

J
job status report, 114
journal
 cash disbursements, 20
 cash receipts, 20
 cash sales, 20
 general, 20
 invoice register, 20
 merchandise purchased, 20
 merchandise purchased by due date, 20

L
laundry and janitorial account, 45
ledger, 19
 accounts payable, 20
 accounts receivable, 19
 general, 19
 monthly payroll, 20

 quarterly payroll, 20
 year-to-date payroll, 20
liabilities
 current, 43
 long-term, 43
 ratio of current to long-term, 93
LIFO, 174
locations, multiple, 33
long-term liabilities, 43
Lotus 1-2-3, 18
Lotus Development Corporation, 107

M
machinery and equipment, 42
machinery and equipment rental account, 45
"magic number" ordering system, 181
mailing labels, vendor, 156
menu, 8, 79
merchandise purchased by due date journal, 20
merchandise purchased journal, 20, 66
microdisk, 118
miscellaneous expenses account, 46
modem, 100
MS-DOS, 51
Multiplan, 18
multiple companies, 59, 62, 80

N
notes payable, 43

O
operating system, 51
organization costs, 12
other expenses account, 46
other income account, 46
other taxes account, 45
owners' equity account, 93

P
Paladin Software, 107
parallel operation, 13, 190
password, 63, 100, 148
payee/payor number, 55, 69
payroll
 manual calculation, 157
 monthly ledger, 20
 quarterly ledger, 20
 year-to-date ledger, 20
payroll account, 68
payroll taxes account, 45
petty cash, 41
PFS, 110
phone account, 44
postage and freight account, 44
posting, 9, 85

power failure, 125
power surge, 124
prepaid insurance, 42
print buffer, 122
printer, 121
 dot matrix, 122
 forms tractor, 122
 reliability, 122
 speed, 121
 versatility, 123
printer interface, 123
 parallel, 123
 serial, 123
processing cycle, 88
 monthly, 88
 weekly, 88
 yearly, 91
profit and loss statement, 28, 93
programming, custom, 111
purchase discounts account, 46

Q
queue, 8, 80

R
realization register, 115
rent, 44
repairs and maintenance account, 44
repetitive charge account, 131
reporting, 9
retainage report, 115
retained earnings, 64
retained earnings account, 37, 43, 47, 93

S
salaries and commissions, 44
sales account, 44
sales discounts account, 47
sales tax payable, 43
savings account, 41
schedule, 20
security, system, 99
source documents, filing, 83
spreadsheet, 18, 106
 operation, 107-108
 use with income statement, 109
standard entry, 70
statement of financial position, 92
subsidiary, naming, 63
supplies account, 45
surge suppressor, 124

T
trade credit, 143
travel account, 45
trial balance, 95
"trick" account, 73

U

uninterruptable power supply (UPS),
125-126
unit rate, 114
utilities, 44

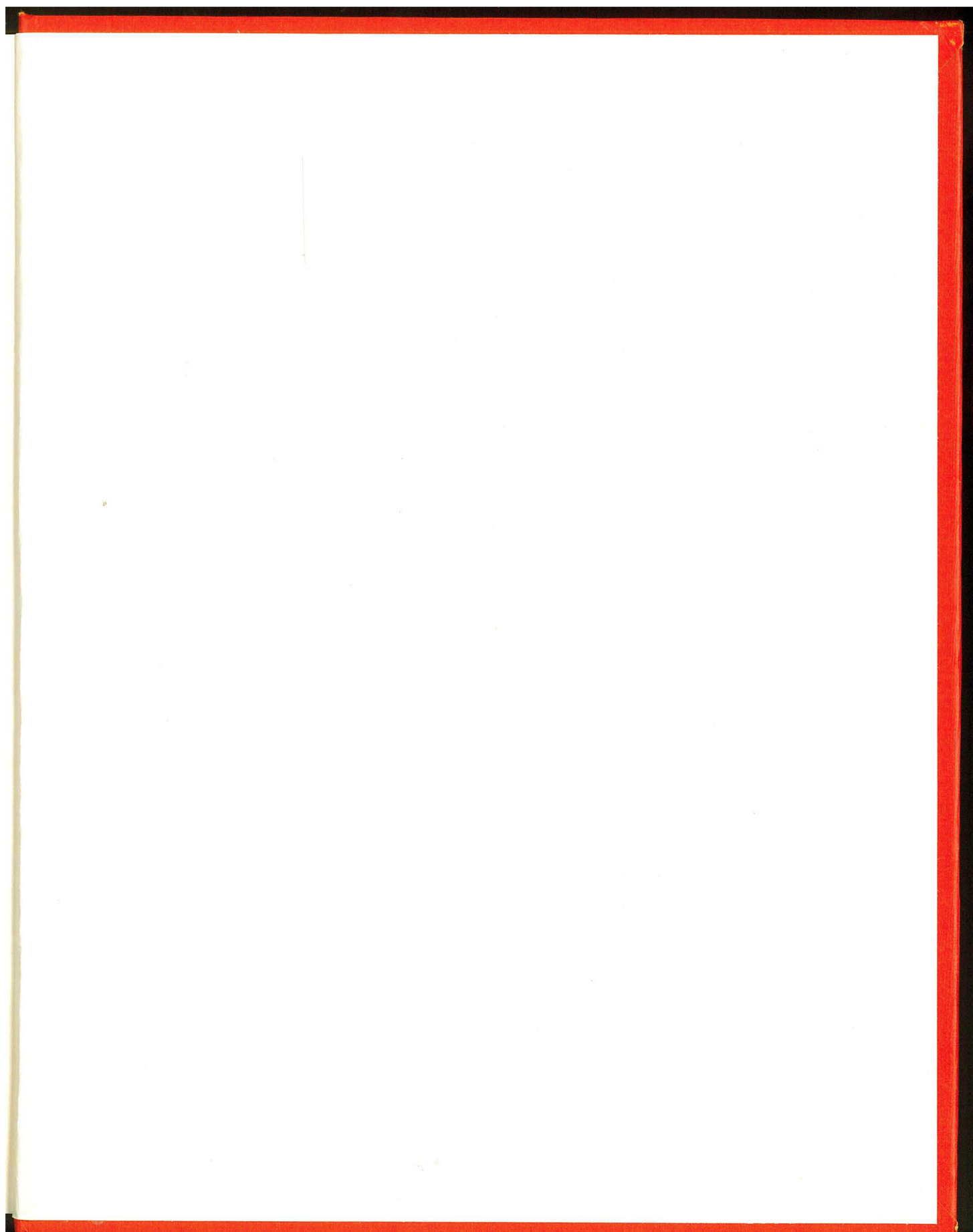
V

variance report, 114
vendor, 54
casual, 153
vendor number, 54, 69
assigning, 54

VisiCalc, 106
voucher system, 149

W

"wire basket" method, 82
withholding tax payable, 43



ISBN 0-8306-0396-4